GOSHEN BUGGY TOP CO.

GOSHEN, IND.

CATALOG No. 39

JANUARY, 1915

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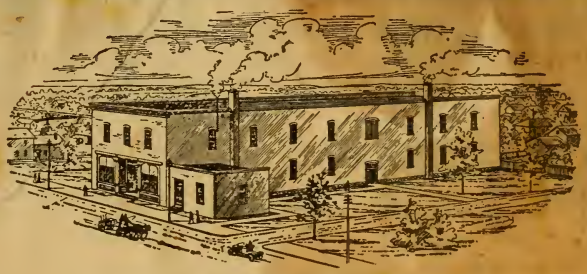
ORGANIZED 1883. INCORPORATED 1891.

WELCOME WHITAKER, President. ORA BIGLER, Vice-President.
OWEN COVER, Secretary & Treasurer.



Our Factory in 1883.

Catalogue and Net Price List

No. 39

JANUARY 1, 1915.

Our Present Factory.

TO THE TRADE. It is our purpose, in issuing this book, to provide **The Trade** with a **Confidential NET Price List** in a convenient form for daily use, containing NET PRICES on all goods we handle. We deal only with people who are engaged in business.

ADDRESS ALL MAIL PLAINLY

GOSHEN BUGGY TOP COMPANY

GOSHEN, INDIANA, U. S. A.

RULES AND SUGGESTIONS FOR CUSTOMERS.

This page is worth reading carefully. In nearly every case of misunderstanding, we find that it would have been avoided if the customer had taken the trouble to read this page carefully.

1.—It is very important that a customer should write plainly his name and post office address. This is often omitted. In case the goods are to go to some other town than the one which mail is addressed to, the fact should be plainly stated, together with the name of the county in which the railroad station is situated.

2.—If there is no agent at the station to which goods are sent and freight is to be prepaid, in consequence, this fact must be stated on every order. Don't fail in this.

3.—It will well repay all time and trouble spent, if a customer would, before ordering, carefully look up in this catalog, the article which he is ordering. Frequently you will find that we have different sizes, lengths, shapes, weights, or other instructions, which might just as well be given when the order is placed, but which is neglected because the customer has not first turned to our description of the article in this book. In such cases, we must either detain the order, and write back to a customer, or else make a guess at the missing size.

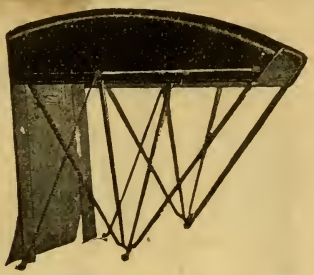
4.—It is a good plan, and one which most customers are following, to put down the price after the article, just as it appears in this book. We can then see just what a customer is expecting to pay, and if any mistake is made, we can set him right about the price, before filling the order, thus avoiding any misunderstandings later on.

5.—Do not write for a discount sheet, or a net price list applying to this catalog. The prices which we print in this book are positively our lowest confidential prices to the trade, and it is useless to write for discounts, as we have none for anybody.

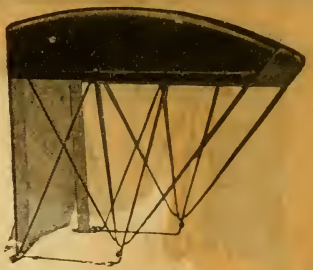
6.—Our terms are CASH on everything. It is this rule which has enabled us to offer our customers the best goods for the least money. Money may be sent by draft, postoffice order, express order, or registered letter. Postage stamps accepted as cash.

7.—Don't ask us to ship goods C. O. D. This system is all right on large amounts where $15.00 or $20.00 accompanies the order as part payment, but on smaller amounts we consider it a poor way of doing business. We go to an immense amount of trouble and expense to make our selling prices so plain that anybody can make up an intelligent order, and know beforehand exactly what the bill amounts to.

8.—We receive daily inquiries from all parts of the country for freight rates. Our goods cover seven different classes of freight, each of which takes a different rate to the same town. Freight rates depend not only on what kind of goods are ordered, but on the quantity, as railroads charge more in proportion for small shipments than for large ones; and they also depend on how the goods are packed. Goods billed as "bolts" or "wagon irons" take the lowest rate. It therefore is impossible to give our customers a really good idea of what freights will cost to any point, unless we have an exact list of what goods will be ordered. From this we can figure the exact amount of freight to almost any point.



Four-Bow Top Without Rail.



Four-Bow Top With Rail.

BLACK ENAMELED DRILL TOP No. 00.

In making this top, we use the best quality of black enameled drill for the roof, the quarters and the stays. The back curtain and the side curtains are made of the best colored-back enameled drill, the lining is a heavy imitation wool cloth, blue or green. We consider this is the best drill top on the market. Price includes crating the top in a first class crate for shipment.

No. 00 Top, without rail.....**$5.50**
No. 00 Top, with rail..... **6.00**
Special Tops for Auto-Buggy Seats are described on page 12.

LOW-PRICED FULL RUBBER TOP No. 75.

In making this top we use our Diamond grade of rubber in the roof, quarters and stays. This rubber gives good satisfaction, and we consider the No. 75 top one of the best tops ever put on the market for repair work at a low price. We use 22 oz. rubber throughout in its construction, and make the back curtain and side curtains out of heavy colored back rubber. The lining is a heavy imitation wool cloth, either blue or green, and gives perfect satisfaction. Price includes crating the top in a first class crate for shipment.

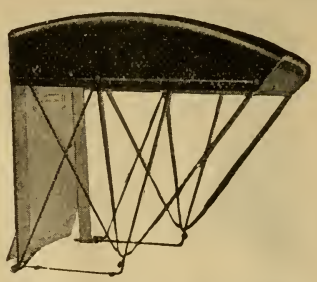
No. 75 Top, without rail.....**$6.00**
No. 75 Top, with rail..... **6.50**
Special Tops for Auto-Buggy Seats are described on page 12.

BEST GRADE RUBBER TOP No. 1.

In making this top, we use only the genuine Fairfield rubber, 22 oz. in the roof, quarters and stays. When the lining ordered is blue or green, we make the side curtains out of colored-back rubber to match. When light colored lining is ordered, we use white back rubber for side curtains. We can fully guarantee this top, which we have made for 25 years, and the reputation of the Fairfield rubber is too well known to need any comment. The back curtain, back stays, and roof of the top are all lined alike, with 6 oz. genuine all wool cloth, blue, green, or light colored. As a good top for a moderate price, this top has no equal anywhere. Price includes crating the top in a first class crate for shipment.

No. 1 Top, without rail.....**$7.00**
No. 1 Top, with rail..... **7.50**
Special Tops for Auto-Buggy Seats are described on page 12.

Four-Bow Top Without Rail.



Four-Bow Top With Rail.

EXTRA FINE RUBBER TOP No. 50.

We have found an enormous demand for a really good rubber top. A well made top covered with really good, heavy rubber is about as satisfactory a top as there is on the market. This we offer in the No. 50. We use 28 oz. genuine Fairfield rubber throughout, on the roof, quarters, stays and back curtain, and the side curtains are made of heavy colored-back Fairfield rubber. With the exception of the side curtains, the entire top, including the back curtain, is lined with 8 oz. heavy all wool cloth in blue or green, or if preferred, we put in a heavy whipcord for light colored work. This top is bound off both front and back, by hand, with a special front valance. We consider this the best rubber top on the market. Price includes crating the top in a first class crate for shipment.

No. 50 Top, without rail..... **$8.75**
No. 50 Top, with rail..... **9.25**
Special Tops for Auto-Buggy Seats are described on page 12.

LEATHER QUARTER TOP No. 80.

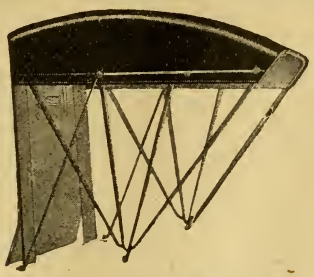
We offer this top to the trade as a low priced leather quarter top, made especially for repair work. We use genuine leather in the quarters and stays, and 22 oz. Diamond rubber in the roof. The back curtain and side curtains are made of heavy colored back rubber. The lining is made of heavy, imitation wool cloth, blue or green, which gives perfect satisfaction. Price includes crating the top in a first class crate for shipment.

No. 80 Top, without rail..... **$7.75**
No. 80 Top, with rail..... **8.25**
Special Tops for Auto-Buggy Seats are described on page 12.

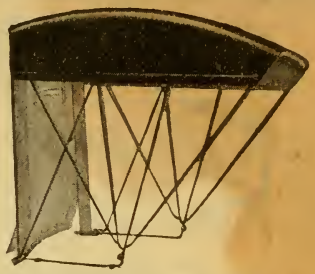
LEATHER QUARTER TOP No. 2.

The most popular leather-quarter top on the market. It corresponds to our No. 1 full rubber top, having genuine Fairfield 22 oz. rubber in the roof and back curtain and genuine top leather in the quarters and stays. The side curtains are made of heavy colored back rubber when the top is ordered with blue or green lining. When ordered with light colored lining we use white back rubber in the side curtains. The back curtain, back stays and roof, all lined alike with 6 oz. genuine all wool cloth, blue, green or light colored. The top is made in such a way that we can fully recommend and guarantee it. Price includes crating the top in a first class crate for shipment.

No. 2 Top, without rail..... **$8.75**
No. 2 Top, with rail..... **9.25**
Special Tops for Auto-Buggy Seats are described on page 12.



Four-Bow Top Without Rail.



Four-Bow Top With Rail.

LEATHER QUARTER TOP No. 55.

We are here offering a leather-quarter top, which in quality corresponds to the No. 50 rubber top. Made for those who want something a little better than the best. In the quarters and stays, we use first class M. B. top leather. In the roof and back curtain, we use 28 oz. Fairfield rubber, and in the side curtains we use heavy colored-back Fairfield rubber. With the exception of the side curtains, the top is lined throughout with heavy 8 oz. all wool cloth, blue or green, or we will use heavy light colored whipcord if preferred. The top is bound off by hand, front and back, and we can safely say that no new buggy carries a better leather-quartered top than this. We could offer no suggestion for its improvement, unless it would be that we put on a leather back curtain instead of rubber. We frequently do this, on this particular top, for which we make a net extra charge of $2.00. Price includes crating the top for shipment.

No. 55 Top, without rail..... **$10.25**
No. 55 Top, with rail..... **10.75**
Special Tops for Auto-Buggy Seats are described on page 12.

YOUNG MAN'S TOP No. 60.

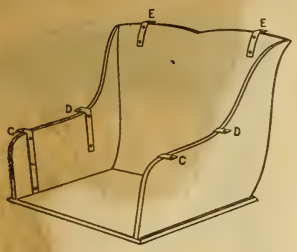
This top has leather-quarters and stays, heavy rubber roof and back curtain. It is lined throughout except the side curtains with all-wool green cloth; side curtains are made of heavy colored-back rubber. It is trimmed up as follows: The leather-quarters and stays are embossed with a fancy pattern; the back stays and side laces are trimmed up in fancy colors, and the head lining is welted in fancy colors. The back stays are further trimmed with mirrors and the top carries nickel nuts and fancy joints. This top is a winner with the young man who wants something fancy. Price includes crating the top in a first class crate for shipment.

No. 60 Top, without rail..... **$9.25**
No. 60 Top, with rail..... **9.75**
Special Tops for Auto-Buggy Seats are described on page 12.

FULL LEATHER TOP No. 3.

We figure that a customer who wants a full leather top wants something good. Therefore in making our No. 3 top, we use first quality M. B. leather throughout except side curtains, which are made of heavy colored back Fairfield rubber. The lining is a heavy 8 oz. genuine all wool cloth, blue or green, or we will use heavy light colored whipcord if preferred. The top is bound off by hand both front and back, and is a strictly high grade, first class full leather top in every respect. Price includes crating the top in a first class crate for shipment.

No. 3 Top, without rail..... **$13.50**
No. 3 Top, with rail..... **14.00**
Special Tops for Auto-Buggy Seats are described on page 12.



TOPS SUITABLE FOR AUTO-BUGGY SEATS.

Similar to our Style No. 45, Described on Page 24.

Many of the modern up-to-date buggy seats are designed to imitate automobile seats. The shifting rail is the iron that runs along the edge of the seat, to which the top is fastened. This shifting rail follows the edge of the seat, up to, and along the top edge of the back, making a very crooked and odd shaped rail, something like the cut above. If you want a top for a seat of this kind, follow carefully the instructions and information given on this page.

The framework of the ordinary buggy tops, such as are described on pages 6 to 11, will not answer the purpose for these seats. They require a special framework, which is much longer from front to back than a regular buggy top, and a different height and shape.

The only way to get a good fitting top suitable for these odd shaped auto buggy seats, is to take off the shifting rail, and ship it to Goshen by express, charges prepaid, and let us fit the top to the rail. At the same time send us a few measurements to guide us in setting up the rail on our forms. These measurements are very important and are plainly shown on the above diagram. Take all measurements in straight lines, up and down, and not on an angle.

Give height from the bottom of the seat to the top edge of all seat irons, as shown in the above diagram. Seat Irons are marked "C," "D," and "E."

Give distance across the front of the seat from center to center of holes in the seat irons, as shown above, "C" to "C."

NOTICE.

These tops are only made in THREE-BOW STYLE. Therefore do not order Four-Bow, nor Handy, nor Ram's Horn styles, as we are unable to furnish them.

EXTRA COST.

Tops made in this special style for auto buggy seats cost us extra, and we must, in turn, charge extra for them as follows:

No. 00 Tops, add extra.....	**$1.00**	**No. 80** Tops, add extra.....	**$1.50**
No. 75 Tops, add extra.....	**1.00**	**No. 2** Tops, add extra.....	**1.50**
No. 1 Tops, add extra.....	**1.00**	**No. 55** Tops, add extra.....	**1.50**
No. 50 Tops, add extra.....	**1.50**	**No. 60** Tops, add extra.....	**2.00**

For description of these tops, see pages 9, 10 and 11.

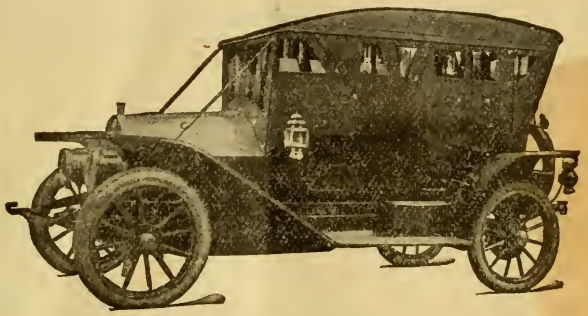
PRICE LIST OF AUTOMOBILE TOPS AND REPAIRS.

GENERAL DESCRIPTION.

All auto tops are furnished complete with dust hood, full set of straps, full side curtains, closing up to wind shield, and irons for attaching top to car.

If the automobile is sent to Goshen and we fit up the side curtains, hood, etc., add $2.50.

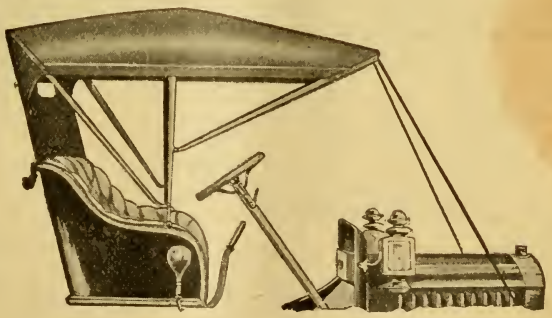
Our prices do not include a front roll-up curtain, which is not needed on a car which is equipped with a windshield. In some cases, however, a front roll-up curtain may be desired, and our extra charge on same is $5.00.



TOURING CAR TOP.

These prices are for standard size four-bow tops, for cars carrying four or five passengers.

Silk finish mohair top	**$30.00**
English Stripe mohair top	**30.00**
Crissy Cloth top	**28.00**



STANDARD RUNABOUT TOP.

We can place the front bow at a greater angle than shown in the cut, or have it entirely concealed, if customer so desires.

English Stripe mohair top	**$20.00**
Silk Finish mohair top	**20.00**
Crissy Cloth top	**17.00**

(See Pages 14 and 15.)

HOW TO TAKE MEASUREMENTS FOR AUTOMOBILE TOPS.

Take all measurements on straight lines, not angling lines. Be accurate.

If the body is ironed with threaded barrel irons, take all vertical measurements from center of the barrel, and all others from shoulder to shoulder.

In general, all measurements are taken to the center of holes in irons.

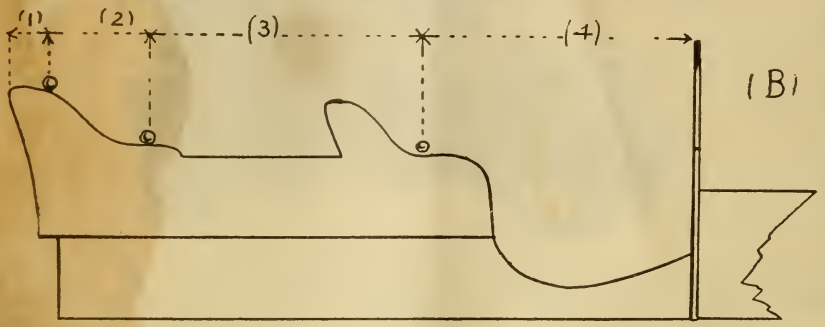
Great care should be taken in locating "The Top of the Seat Board" and "The Bottom of the Body," as much depends on getting these accurately.

When old tops are sent in to be re-covered, this measurement blank should be filled out just the same as though a new top were ordered.

If customer will run the car to Goshen, we will take the measurements without charge.

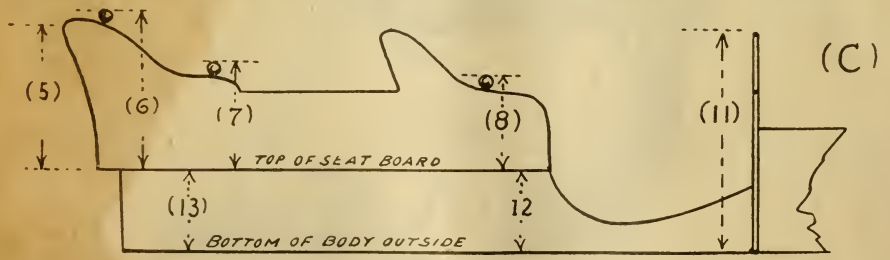
In ordering a roadster top, it is evident that some measurements must be omitted, but the same blank should be filled out as far as possible.

Four Measurements Lengthwise of the Body Are Required.



No. 1, From extreme rear of tonneau to center of rear iron.....
No. 2, From center of rear iron to center of middle iron.....
No. 3, From center of middle iron to center of front iron.....
No. 4, From center of front iron to inside of dash or windshield.....

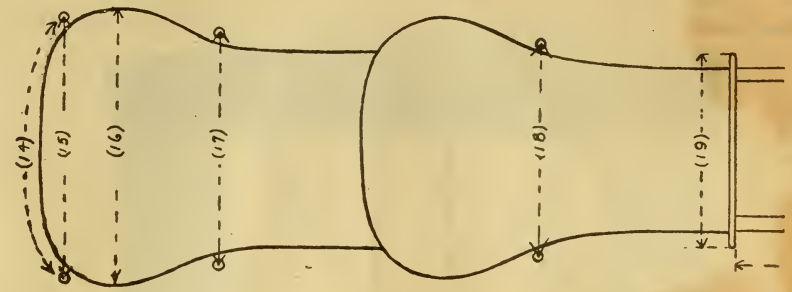
Seven Vertical Measurements, Showing the Different Heights, Are Required.



No. 5, From top of seat board, up to the bottom of back curtain.....
No. 6, From top of seat board, up to top of rear iron.....
No. 7, From top of seat board, up to the top of middle iron.....
No. 8, From top of seat board, up to top of the front iron.....
No. 11, From bottom of body to top of windshield (or dash if there is no windshield.)
No. 12, From bottom of body to top of seat board.....
No. 13, From bottom of body to top of seat board.....

(Continued on next page.)

HOW TO TAKE MEASUREMENTS FOR AUTOMOBILE TOPS (Continued).



Six Measurements Across the Body Are Required.

No. 14, Around the top edge of tonneau, between the irons.....

No. 15, Across the tonneau, center to center of rear irons.....

No. 16, Widest part of tonneau, outside to outside of upholstering.....

No. 17, Across the tonneau from center to center of middle irons.....

No. 18, Across the front seat, center to center of front irons.....

No. 19, Width of windshield, or dash if there is no windshield.....

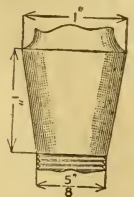
ANSWER THE FOLLOWING QUESTIONS:

Are there any doors on the front part of the body?.....

Name of car..... Model No..... Year.....

Shall the trimmings be Brass, Nickel, or Japanned?.....

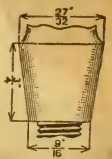
Are the holes in the body irons large or small taper? (See cuts below).....



Large Taper.

If the holes in the body are square or irregular and different from the diagrams, send us a sketch of them.

It is always desirable to send a cut or picture of the car to which the top is to be applied, if convenient.



Small Taper.

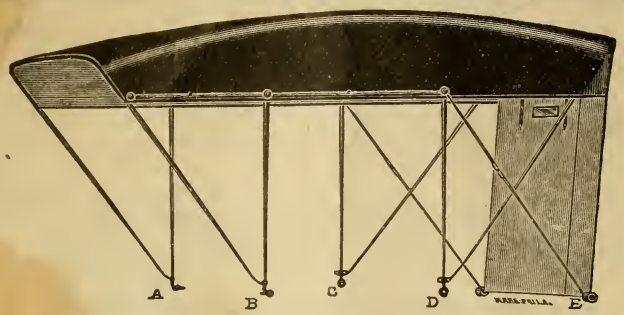
For price list of Automobile Tops see page 13.

We use japanned sockets, with adjustable front bows. Curved sockets are used wherever the shape of the car will permit.

We re-cover and repair automobile tops. Write for prices.

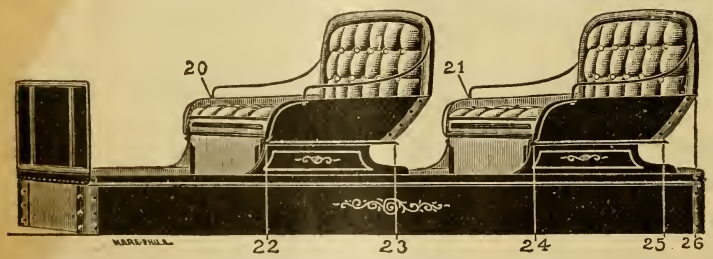
INSTRUCTIONS FOR MEASURING EXTENSION TOPS.

When Seats Are Ironed, Use This Diagram, and Order the Top, Without Rail.



Give distance from A to B, and distance from C to D. Usually the same.
Give distance from B to D, and distance from D to E.
Measure height of irons above the base line of the body, and give us distance from B to base line, and distance from D to base line. Usually the same.
Give width of the top at E, from outside of the back stays so that we will know how wide to make the top behind, from out to out.

When Seats Are Not Ironed for a Top, Use the Diagram Below, and Order the Top, with Rail.



Measure width across the seat, at "20" and also width at "21."
Measure heighth of irons above the base line of the body, and give us the distance of "20" to base line, and distance of "21" to base line.
Also give us the following measurements, referring to numbers on the diagram: "22" to "23." 23 to 24. 24 to 25. 24 to 26. 22 to 26.

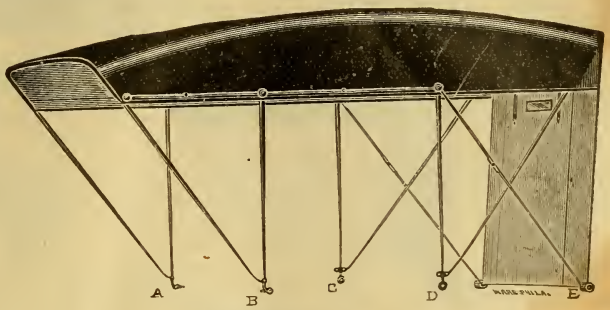
SPECIAL NOTICE.

Our standard pattern of extension top is so made, that the length of the front section measuring in a straight line from the front, upright bow, to the extreme front edge of the top is 24 inches.

If longer tops are wanted, they must be made up to a special draft, which often includes odd and irregular lengths of bow sockets. Our extra charge on such tops is usually $2.00, but exact price quoted when specifications are sent in.

The average size of the "door" of an extension top, is 24 in., or 26 in., and sometimes 28 in. or 30. in. When longer than 30 in., a blind or swing bow should be used, to support the center section. On work of this character, we prefer to quote price on application, but usual extra is $2.50 for a top of this description.

EXTENSION TOPS FOR TWO-SEATED CARRIAGES.



EXTENSION TOP No. 8.

This is undoubtedly the most popular extension top on the market. It is a full rubber top, covered throughout with 22 oz. genuine Fairfield rubber, which needs no recommendation from us. It is lined with 6 oz. genuine all wool cloth, either blue or green, including the back curtain. The side curtains are made of colored back rubber to match the lining. This top can be strongly recommended for repair work, as it is a first class full rubber top. Price includes crating the top in a first class crate for shipment.

No. 8 Extension Top, without rail..... **$10.50**
No. 8 Extension Top, with rail **11.00**

EXTENSION TOP No. 9.

This top corresponds in general style to top No. 8, except that it has genuine leather-quarters and leather back stays. The roof and back curtain are made of 22 oz. Fairfield rubber, and the top is lined throughout, except side curtains, with genuine 6 oz. all wool cloth, blue or green. This is a first class leather-quarter extension top. If desired, we can use a leather back curtain in place of the regular rubber back curtain, at an extra charge of..... **$2.00**

No. 9 Extension Top, without rail..... **$12.50**
No. **9** Extension Top, with rail..... **13.00**

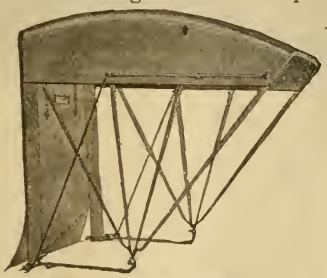
EXTENSION TOP No. 10.

This top is covered throughout with first quality M. B. leather, and lined throughout except side curtains, with 8 oz. genuine all wool cloth, blue or green, or with heavy light colored whipcord if desired. The side curtains are made of extra heavy colored back rubber to match the lining of the top. The top is bound off by hand front and back, and is first class in every respect. Price includes crating the top in a first class crate for shipment.

No. 10 Extension Top, without rail..... **$21.00**
No. 10 Extension Top, with rail **21.50**

TOPS SUITABLE FOR SPRING WAGONS.

Any of our regular buggy tops may be ordered large enough for spring wagon seats. When tops are ordered with bows 45 in. wide, inside or wider, we make a net extra charge on such tops of.....**50¢**

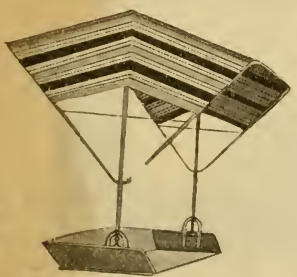


No. 99 CANVAS TOP.

This top is especially suitable for spring wagons, brewers wagons, etc., as it is made just like any regular buggy top, with the regular side curtains and back curtain, and without any lining. It is covered with the best No. 10 white sail duck throughout. We furnish a full, complete rail, with adjustable clips, making it easy to attach this top to the seat, and a good strong job.

In ordering, give us the width across the seat from center to center of holes in the seat irons, so that we may know how wide a top to send.

No. **99** Top, with rail, price.....**$6.50**



WAGON SUNSHADES.

These tops are so well known that description is scarcely necessary. Covered with blue and white striped duck. We send with them, all the irons for attaching them to the seat. By means of the patent adjustable irons which we use, it is possible to use one size of top on a number of different widths of seat. The size which we regularly carry in stock is 42 in. between the bows, but will fit any seat measuring in width from 36 in. to 46 in.

No. 104—Wagon sunshades, with adjustable irons complete, bows measuring 42 in. inside width. Price each **$3.00**

WAGON UMBRELLAS.

We carry in stock one style of wagon umbrella, having six heavy steel ribs and a spread of nearly six feet. We send with every umbrella a set of good strong irons for attaching the umbrella to the wagon.

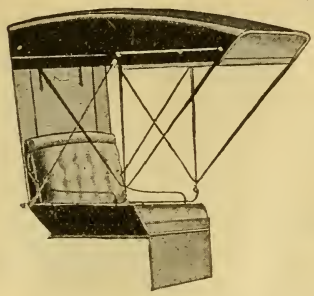
The following colors are carried in stock, ready for immediate shipment.

Green.
Blue.
Brown.
White.

The white ones are suitable for lettering a business advertisement.

Price each for any of these colors **$1.35**

No. 290 TRIMMED SEATS.



Seats advertised on this page, include a common panel buggy seat, with sides 5½ inches, trimmed in your choice of materials, as shown in our description, with cushion and drop lazy back, without springs. For springs in cushion, we make the usual extra charge of **50¢**. For springs in lazy back, select our **No. 280** or **No. 250** seat shown on another page.

Any buggy top advertised in this book may be used on this seat, but for convenience in figuring the price, we have selected our popular **No. 1** top, and used the price of that top as a basis for figuring. The **No. 1** top separately is listed at **$7.00**. If a cheaper top is desired, or a more expensive top, figure less or more than the price here given you according as the top selected is worth less or more than **$7.00** in our regular catalogue price list.

Seats are always shipped in the white unless ordered painted at an extra charge of **$1.00.** 28-in. seats only, are carried in stock painted. Other sizes will be painted after order is received, which means some delay.

Only one measurement is required, length on bottom outside, out to out. We carry in stock the following lengths, 24-in., 27-in., 28-in., 29-in., 30-in., 32-in., 34-in., 36-in., 38-in., 40-in. and 42-in. Standard length is 28-in.

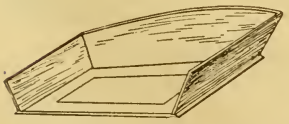
No. 290—A Seat. Figured with **No. 1** top attached. Your choice in the trimming of blue or green union cloth, black or dark green artificial leather.
Sizes from 24-inch to 30-inch, **$12.00** Sizes from 32-inch to 42-inch, **$12.25**

No. 290—J Seat. Without top. Your choice in the trimming of blue or green union cloth, black or dark green artificial leather.
Sizes from 24-inch to 30-inch, **$4.50** Sizes from 32-inch to 42-inch, **$4.75**

No. 290—B Seat. Figured with **No. 1** top attached. Your choice in the trimming of blue or green all-wool cloth, or corduroy, or light colored whipcord.
Sizes from 24-inch to 30-inch, **$13.00** Sizes from 32-inch to 42-inch, **$13.25**

No. 290—K Seat. Without top. Your choice in the trimming of blue, or green all-wool cloth, or corduroy, or light colored whipcord.
Sizes from 24-inch to 30-inch, **$5.50** Sizes from 32-inch to 42-inch, **$5.75**

No. 10 PANEL SEAT.

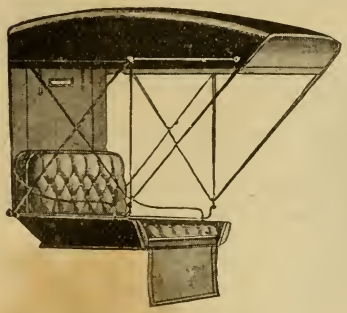


This seat is our regular panel seat for buggies and spring wagons, measuring 15 inches deep from front to back on bottom inside, an dsides are 5½ inches high. Following sizes carried in stock, and price includes seat only, without irons, lazy back or paint.

These lengths are measured on the bottom outside.

24-in., 25-in., 26-in., 27-in., 28-in., 29-in., and 30-in., each..... **$1.25**
32-in., 34-in., 36-in., 38-in., 40-in., and 42-in., each..... **$1.40**

No. 280 TRIMMED SEATS.



This seat is designed to meet the requirements of those who desire a seat with a spring back, at a moderate price. The spring back is the "bellows" pattern, a somewhat cheaper construction than the "overstuffed" kind which we use on our **No. 250** seats. The lazy back is also attached to the seat by means of irons and bolts, so that it is detachable. This means a saving to us in crating the seat for shipment.

The seat itself is a regular panel buggy seat with sides 5½-in. high. The back measures 20-in. high from the bottom of the seat. The ends of the seat are not padded, but are left untrimmed, to be painted. Our regular method of trimming allows for no springs in the cushions, but we can furnish a spring cushion at the regular extra charge of.....**50¢**

The lazy back has plenty of good springs.

In figuring the price of this seat with a top, we base our prices on using our **No. 1** top, sold separately for **$7.00**. If customer prefers a higher or lower priced top, select same from price list, and add or subtract according as the price of top selected is higher or lower than **$7.00**.

Seats are always shipped in the white unless ordered painted, at an extra charge of **$1.25**, which includes (on **No. 280** seats only) covering the lazy back outside, with enameled cloth instead of paint. 28-inch seats only are carried in stock painted. Other sizes will be painted after the order is received, which means some delay.

Only one measurement is required, the length of seat on bottom outside from out to out. We carry in stock the following lengths: 24-in., 26-in., 27-in., 28-in., 29-in., 30-in., 32-in., 34-in., 36-in., 38-in., 40-in. and 42 in. Standard length is 28-in.

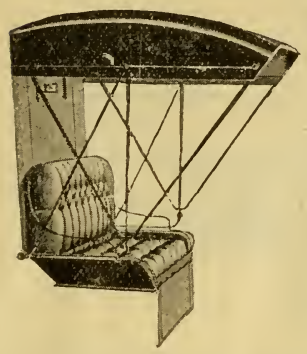
No. 280—A Seat. Figured with **No. 1** top attached. Your choice in the trimming, of blue or green union cloth, black or dark green artificial leather. Sizes from 24-in to 30-in.....**$12.50**
Sizes from 32-in. to 42-in..... **12.75**

No. 280—J Seat. Without a top, for open job. Your choice in the trimming, of blue or green union cloth, black or dark green artificial leather. Sizes from 24-in to 30-in.....**$5.00**
Sizes from 32-in. to 42-in..... **5.25**

No. 280—B Seat. Figured with **No. 1** top attached. Your choice in the trimmings, of blue or green all-wool cloth, or corduroy, or light colored whipcord. Sizes from 24-in. to 30-in.....**$13.50**
Sizes from 32-in. to 42-in..... **13.75**

No. 280—K Seat. Without a top, for open job. Your choice in the trimming, of blue, or green all-wool cloth, or corduroy, or light colored whipcord. Sizes from 24-in. to 30-in.....**$6.00**
Sizes from 32-in. to 42-in..... **6.25**

No. 250 TRIMMED SEATS.



This is our best buggy seat, with wide board back built solid on seat, 21-in. high. Sides of seat are 6½-in. high, and are padded and trimmed. Plenty of good springs in the cushion and the back, which is of the "over-stuffed" kind, such as is used in the very highest quality of buggies. We offer a wide choice of materials in which to have the trimmings done.

In figuring the price of this seat, we base our prices on using our **No. 1** top, sold separately for **$7.00.** If customer prefers a higher or lower priced top, select same from price list, and add or subtract according as the price of top selected is higher or lower than **$7.00.**

Seats are always shipped in the white unless ordered painted at an extra charge of **$1.75.** 28-in seats only, are carried in stock painted. Other sizes will be painted after order is received, which means some delay.

Only one measurement is required, length on bottom outside, out to out. We carry in stock the following lengths, 24-in., 26-in., 27-in., 28-in., 29-in., 30-in., 32-in., 34-in., 36-in., 38-in., 40-in., and 42-in. Standard length is 28-in.

No. 250—A Seat. Figured with **No. 1** top attached. Your choice in the trimming of blue or green union cloth, black or dark green artificial leather. Sizes from 24-in. to 30-in..... **$14.00**
Sizes from 32-in to 42-in..... **14.25**

No. 250—J Seat. Without top, for open job. Your choice in the trimming of blue or green union cloth, black or dark green artificial leather.
Sizes from 24-in to 30-in..... **$6.50**
Sizes from 32-in to 42-in..... **6.75**

No. 250—B Seat. Figured with **No. 1** top attached. Your choice in the trimming, of blue or green all-wool cloth, or corduroy, or light colored whipcord. Sizes from 24-in. to 30-in..... **$15.00**
Sizes from 32-in. to 42-in..... **15.25**

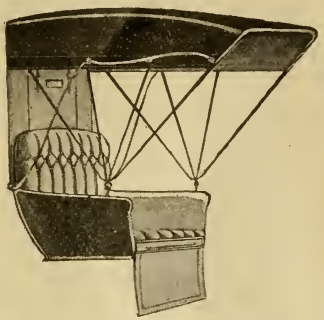
No. 250—K Seat. Without a top, for open job. Your choice in the trimming, of blue or green all-wool cloth, or corduroy, or light colored whipcord. Sizes from 24-in to 30-in..... **$7.50**
Sizes from 32-in. to 42-in..... **7.75**

No. 250—C Seat. Figured with **No. 1** top attached. Trimmed in genuine leather, black or very dark green, maroon or dark wine color, or tan color. Sizes from 24-in. to 30-in..... **$18.00**
Sizes from 32-in. to 42-in..... **18.25**

No. 250—M Seat. Without a top, for an open job. Trimmed in genuin leather, black or very dark green, maroon or dark wine color, or tan color. Sizes from 24-in to 30-in..... **$10.50**
Sizes from 32-in. to 42-in..... **10.75**

No. 250—F Seat. Same as above, except that it is figured without trimmings of any kind, ironed in the white, with solid board back attached. With cushion frame. All sizes, 24-in. to 42-in. **$2.85**

No. 250—X Seat. Same as above except that it is figured without trimmings of any kind, and without irons, without paint, simply the seat, with cushion frame, with a solid board back not attached. All sizes..... **$2.35**



No. 305 PHAETON SEAT.

Seats shown on this page, are built on good lines, not extreme in style, yet very comfortable and stylish. Sides are 9½ inches high, and back is 22 inches high.

The ends of the seat are well padded, but not tufted, leaving plenty of room in the seat. The cushion and back are full plaited work with plenty of good springs.

This seat fully meets the requirements of a customer who wants a little better seat than our **No. 250** seat, yet not extreme in style.

In figuring the price of this seat with a top, we base our prices on using our **No. 50** top, sold separately for **$8.75.** If customer prefers a higher or lower priced top, select same from price list, and add or subtract according as the price of top selected is higher or lower than **$8.75.**

Seats are always shipped in the white, unless our customer orders the seat painted, at an extra charge of **$2.50.** We aim to carry a few of these seats in stock, painted, all the time.

The **No. 305** phaeton seat is carried in stock in only one size, 29x18, on the bottom outside.

This size fits practically all widths of bodies from 22 inches to 26 inches.

Other sizes can be made to order, but it usually requires from three to four weeks to get odd sizes through the factory, and owing to the extra expense we must charge extra for odd sizes..... **$1.00**

No. 305—A. This number indicates the above seat trimmed, in blue or green heavy all-wool broadcloth, or in light colored whipcord, with cushion and back, and our No. 50 top, complete..... **$17.75**

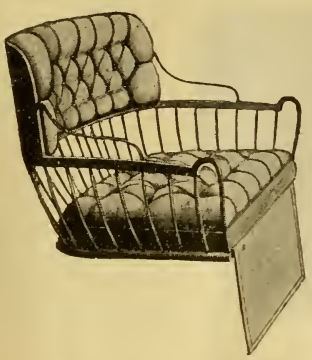
No. 305—K. Exactly the same as No. 305—A, except for open job without top, and without irons for top, but with arm rails..... **$ 8.75**

No. 305—B. This number indicates the above seat trimmed in genuine trimming leather, any desired color, black or dark green, maroon or dark wine color, or tan color, as customer may select. The price includes the seat, with cushion and back, and our No. 50 top, complete, without paint. Price **$20.75**

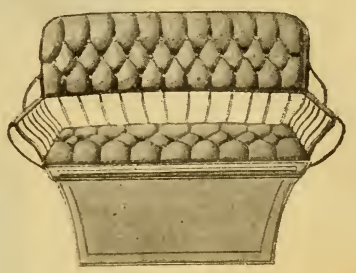
No. 305—L. Exactly same as No. 305—B, except for open job without a top, and without irons for top but with arm rails..... **$12.00**

No. 305—X. This number indicates the above seat, with cushion frame, without trimming, without irons, and without paint. Price..... **$ 3.50**

STICK SEATS.



No. 105 STICK SEAT.
With single bend spindles.



No. 110 STICK SEAT.
With double bend spindles.

We carry a stock of stick seats in both single and double bend spindles all at the same price, and customers may have their choice. These seats are all well made, with good high backs, and plenty of good hard-wood spindles which are not easily broken out. In trimming them, we put in good, comfortable, well-padded backs, and the cushions are made with plenty of good springs.

As a rule these seats are used only on open jobs, without tops, but we can put on any regular buggy top according to the information along this line given on page 7 of this catalog.

Seats are always shipped in the white, unless ordered painted at an extra charge of **$1.75.** 28-in. seats only are carried in stock painted, and other sizes will be painted after the order is received, which means some delay.

Only one measurement is required, the length of seat on bottom outside, from out to out. We carry the **No. 105** seat in three lengths only, 28-in., 29-in., and 30-in. We carry the **No. 110** in the following lengths, 24-in., 26-in., 27-in., 28-in., 29-in., 30-in. and 32-in. Size 28-in. is standard.

No. 105—A or **No. 110—A** Seats. Your choice in the trimming, of blue or green union cloth, or 12 oz. light colored whipcord. Price, any size. **$6.50**

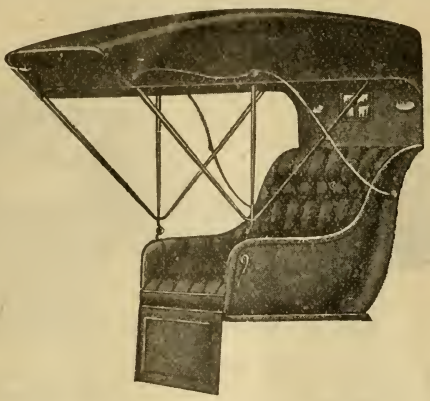
No. 105—B or **No. 110—B** Seats. Your choice in the trimming, of blue or green all-wool cloth, or 14 oz. light colored whipcord. Price, any size. **$7.00**

No. 105—C or **No. 110—C** Seats. Trimmed in genuine trimming leather, your choice of colors, black or very dark green, maroon or dark wine color, or tan color. Price for any size..... **$9.50**

No. 105—X or **No. 110—X** Seats. No trimming at all, simply the seat in the white with cushion frame. Price for any size..... **$3.00**

FENDERS FOR STICK SEATS.

For attaching our regular No. 61 stick seat fenders, extra charge..... **$2.00**



No. 45 AUTOMOBILE SEAT.

UP TO DATE IN EVERY RESPECT.

This seat is the latest thing in the line of auto seats used by the best buggy builders of the country. We have designed this seat to meet the needs of the small carriage builder, who wishes to compete with the big builders.

We propose to trim this seat in the various materials, such as cloth and leather, and furnish it either with a top or without a top.

The top which we have designed for it, is the latest thing in auto top styles, and will compare favorably with any job on the market.

A complete description of the size of the seat, and prices, will be found on the opposite page. We wish to present these different pictures to show the general front view, also rear view, to show the "twin effect," and a view of the inside of the top.

This cut shows the interior of the top, made with cross straps and no separate lining, same as an auto top.

This cut shows the rear view of the No. 45 seat, showing the "twin effect," made by means of dug-out panel work.

No. 45 AUTOMOBILE SEAT (Continued).

GENERAL DESCRIPTION OF SEAT.

The seat is upholstered in cloth or leather of first-class quality, full plaited work, springs in cushion and back. The ends of the seat are left plain, not plaited, to afford more room. The seat measures 30x18 inches on the bottom outside, and is made in this size only. The sides of the seat are 10 inches high. The back of the seat is 22 inches high. Seat is ironed with a shifting rail, following the lines of the seat, which makes the best job where a top is wanted.

GENERAL DESCRIPTION OF TOP.

The top is covered with our 32 ounce rubber duck, crissy cloth finish, which is the material commonly in use on automobile tops, and the general style of the top is that of an automobile top. The back stays are known as "leg of mutton" pattern. The bow sockets are curved. Joints are brass trimmed. Brass auto curtain fasteners, used throughout. In the back curtain we use a large, oval, brass trimmed curtain light.

Seats are always shipped in the white, unless ordered painted, at an extra charge of **$3.00.** We aim to carry a few of these seats in stock painted.

PRICE LIST.

No. 45—A Seat. This number indicates the above seat trimmed in blue or green heavy all-wool cloth, or in light colored whipcord. The price includes the seat, without paint, with the cushion and back, and the special top which we have described above..... **$23.00**

No. 45—K Seat. This number indicates a seat, same as **No. 45—A**, except without the top or shifting rail **$11.00**

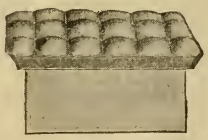
No. 45—B Seat. This number indicates the above seat trimmed in genuine trimming leather, any desired color, black, or very dark green, maroon, or wine color, or tan color, as customer may select. The price includes seat, without paint, with the cushion and back, and the special top which we have described above..... **$27.00**

No. 45—L Seat is exactly the same as **No. 45—B**, except without the top or shifting rail **$15.00**

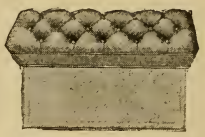
No. 45—X Seat. This number indicates the above seat without irons, without paint, and without trimming, with only the cushion frame.... **$ 6.00**

CUSHIONS.

Plain Top Style.



Biscuit Style.



Diamond Style.

Our customers will find our cushions to be well made, well stitched, with good bottoms, and attractive in appearance. It is our rule to give all cushions the regular flare, the same as is used for any ordinary buggy seat. This is important. If a cushion is ordered for a seat which has little or no flare, the fact should be stated, so that we can make the cushion accordingly.

Cushions Must Be Measured on the Bottom of the Seat Inside.

SPRING CUSHIONS.

We can make any of the cushions listed on this page, with springs, at an additional charge of **50¢**.

STOCK CUSHIONS.

Cushion No. 72 carried in stock, in the following lengths, all 15-in. wide, viz.: 28-in., 30-in., 32-in., 34-in., 36-in.

No. 70—Black enameled drill cushion with fall, plain top, price each....**$0.80**
No. 71—Black enameled drill cushion, no fall, plain top, price each..... **.70**

No. 72—Black rubber cushion with fall, plain top, price each..... **.85**
No. 73—Black rubber cushion, no fall, plain top, price each..... **.75**

No. 74—Union cloth cushion, with fall, plain top, price each..... **1.25**
No. 75—Union cloth cushion with fall, biscuit or diamond style, each.. **1.35**
No. 74 and No. 75 cushions either blue or green.

No. 76—Artificial leather cushions with fall, plain top, price each..... **1.20**
No. 77—Artificial leather cushion with fall, biscuit or diamond style, each. **1.30**
No. 76 and No. 77 cushions either black or dark green.

No. 78—All-wool cushion with fall, plain top, price each..... **1.60**
No. 79—All-wool cushion with fall, biscuit or diamond style, price each. **1.70**
No. 78 and No. 79 cushions either blue or green.

No. 80—Corduroy cushion with fall, plain top, price each..... **1.50**
No. 81—Corduroy cushion with fall, biscuit or diamond style, price each. **1.60**
No. 80 and No. 81 cushions either dark brown or tan color.

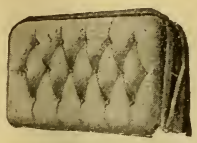
No. 82—Light colored whipcord cushion with fall, plain top, price each... **1.60**
No. 83—Light colored whipcord cushion with fall, biscuit or diamond style, price each **1.70**

No. 84—Black split leather cushion with fall, plain top only, price each.. **2.20**
No. 85—Black split leather cushion, no fall, plain top only, price each.... **1.90**

No. 86—Trimming leather cushion with fall, plain top, price each..... **2.50**
No. 87—Trimming leather cushion with fall, biscuit or diamond plaited, price each with springs..... **3.50**

No. 86 and No. 87 cushions may be made in any of the following colors: Black, dark green, maroon, or dark wine color, or tan color.

LAZY BACKS NOT ATTACHED.



Diamond Style.

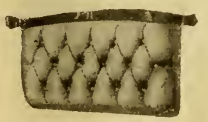
Biscuit Style.

Plain Top Style.

SPRING LAZY BACKS NOT ATTACHED.

Made So That Our Customers Can Attach Them to Old Lazy Back Board.

Spring lazy backs are made to be attached to solid board backs, and we leave a strip of cloth around the entire back for that purpose. Paper patterns showing the exact size and shape of the board from top of board to bottom of seat should be sent when ordering spring lazy backs not attached. Springs are not included at these prices. We furnish back springs at 15c net per dozen, and any ordinary back requires 1 doz. springs.



Diamond Style.

Biscuit Style.

Plain Top Style.

DROP LAZY BACKS NOT ATTACHED.

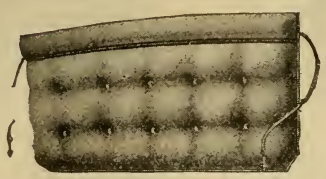
Made So That Our Customers Can Attach Them to Old Lazy Back Board.

Prices are the same for either drop backs, or spring backs, but customers must be particular to state when ordering which is wanted. A drop lazy back is made to tack to a narrow lazy back board, and a strip is always left at the top edge of the back for that purpose. When ordering, give the length of the board, and height of the board from the cushion to top of board.

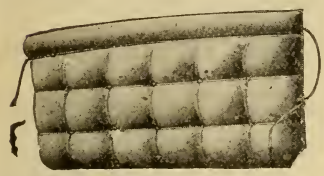
No. **270**—Black enameled drill lazy back, not attached, plain top..... **$0.85**
No. **272**—Black rubber lazy back, not attached, plain top only..... **.90**
No. **274**—Union cloth back, not attached, plain top..... **1.25**
No. **275**—Union cloth back, not attached, biscuit or diamond style..... **1.35**
No. 274 and No. 275 may be either blue or green.
No. **276**—Artificial leather back not attached, plain top..... **1.25**
No. **277**—Artificial leather back not attached, biscuit or diamond..... **1.35**
No. 276 and No. 277 may be either black or very dark green.
No. **278**—All-wool cloth back, not attached, plain top..... **1.60**
No. **279**—All-wool cloth back, not attached, biscuit or diamond..... **1.70**
No. 278 and No. 279 may be either blue or green.
No. **280**—Corduroy lazy back not attached, plain top..... **1.50**
No. **281**—Corduroy lazy back, not attached, biscuit or diamond..... **1.60**
No. 280 and No. 281 may be either dark brown or tan color.
No. **282**—Light colored whipcord back, not attached, plain top..... **1.60**
No. **283**—Light colored whipcord back, not attached, biscuit or diamond.. **1.70**
No. **284**—Black split leather back, not attached, plain top only..... **2.15**
No. **286**—Trimming leather back, not attached, plain top..... **2.65**
No. **287**—Trimming leather back, not attached, biscuit or diamond..... **3.65**

No. 286 and No. 287 backs may be had in the following colors: Black, or very dark green, maroon or dark wine color or tan color.

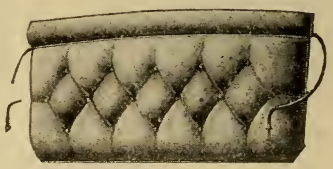
DROP LAZY BACKS ATTACHED.



Plain Top Style.

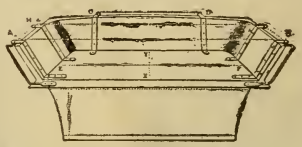


Biscuit Style.



Diamond Style.

HOW TO MEASURE.



Give distance from A to B.
Give distance from C to D.

Attached to the Board and Irons, Ready to Set on the Seat.

No. 170—Black enameled drill drop back attached, plain top..... **$1.55**
No. 172—Black rubber drop attached, plain top..... **1.60**

No. 174—Union cloth drop back attached, plain top..... **1.95**
No. 175—Union cloth drop back attached, biscuit or diamond..... **2.05**
No. 174 and No. 175 backs may be either blue or green.

No. 176—Artificial leather drop back attached, plain top..... **1.95**
No. 177—Artificial leather drop back attached, biscuit or diamond..... **2.05**
No. 176 and No. 177 backs may be either black or very dark green.

No. 178—All-wool cloth drop back attached, plain top..... **2.30**
No. 179—All-wool cloth drop back attached, biscuit or diamond..... **2.40**
No. 178 and No. 179 backs may be either blue or green.

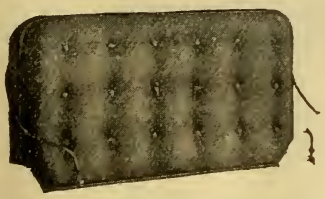
No. 180—Corduroy drop back attached, plain top..... **2.20**
No. 181—Corduroy drop back attached, biscuit or diamond..... **2.30**
No. 180 and No. 181 may be dark brown or tan color.

No. 182—Light colored whipcord drop back attached, plain top..... **2.30**
No. 183—Light colored whipcord drop back attached, biscuit or diamond... **2.40**

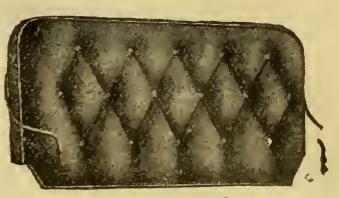
No. 184—Black split leather drop back attached, plain top only..... **2.85**

No. 186—Trimming leather drop back attached, plain top..... **3.35**
No. 187—Trimming leather drop back attached, biscuit or dia. plaited.... **4.35**
No. 186 and No. 187 backs may be had in any of the following colors: Black or very dark green; tan color; maroon or dark wine color.

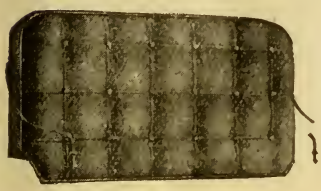
SPRING LAZY BACKS ATTACHED.



Plain Top Style.

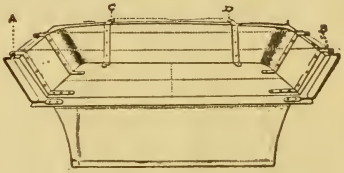


Diamond Style.



Biscuit Style.

HOW TO MEASURE.



Give distance from A to B.
Give distance from C to D.

Attached to the Lazy Back Board and the Irons, Ready to Set on the Seat.

No. **370**—Black enameled drill spring back attached, plain top..... **$2.15**
No. **372**—Black rubber spring back attached, plain top..... **2.20**

No. **374**—Union cloth spring back attached, plain top..... **2.55**
No. **375**—Union cloth spring back attached, biscuit or diamond..... **2.65**
No. 374 and No. 375 backs may be either blue or green.

No. **376**—Artificial leather spring back attached, plain top..... **2.55**
No. **377**—Artificial leather spring back attached, biscuit or diamond..... **2.65**
No. 376 and No. 377 backs may be either black or very dark green.

No. **378**—All-wool cloth spring back attached, plain top..... **2.90**
No. **379**—All-wool cloth spring back attached, biscuit or diamond..... **3.00**
No. 378 and 379 backs may be either blue or green.

No. **380**—Corduroy spring back attached, plain top..... **2.80**
No. **381**—Corduroy spring back attached, biscuit or diamond..... **2.90**
No. 380 and No. 381 backs may be dark brown or tan color.

No. **382**—Light colored whipcord spring back attached, plain top..... **2.90**
No. **383**—Light colored whipcord spring back attached, biscuit or dia.... **3.00**

No. **384**—Black split leather spring back attached, plain top only..... **3.45**

No. **386**—Trimming leather spring back attached, plain top..... **3.95**
No. **387**—Trimming leather spring back attached, biscuit or dia. plaited.. **4.95**
No. 386 and No. 387 backs may be had in any of the following colors: Black or very dark green; tan color; maroon or dark wine color.

CANOPY TOPS, CURTAINS AND SUNSHADES.

Our canopy tops are strong and well made, with plenty of good hardwood ribs. The prices which we here give, are the prices of the canopy top only, without standards, sockets or curtains.

How to Measure.—Give width of seats from outside to outside on top, and length of body. In order to allow for the irons and curtains, we make our canopy top frames three inches wider than the width of seats from out to out on top, and we make them the same length as the body, unless otherwise ordered.

No. 12 CANOPY TOP.

This top is covered with first class enameled drill and is lined with good imitation wool head lining. We put on a good quality of bullion fringe 5 inches deep. Lining may be either blue, green or light colored. The following prices are for the top only, no curtains, standards or sockets. For tops ordered without fringe, deduct **75¢** net.

No. 12 Canopy Top, 60 inches long and less.....**$5.50**
No. 12 Canopy Top, from 61 to 72 inches long..... **6.00**
No. 12 Canopy Top, from 73 to 84 inches long..... **6.50**
No. 12 Canopy Top, from 85 to 108 inches long..... **7.50**

No. 13 CANOPY TOP.

This top is covered with a heavy enameled duck, and is lined with 6 oz. genuine all-wool cloth. We put on a first class quality of 7-in. genappe fringe, and our customers will find this a most excellent top for first class jobs. Lining may be blue, green, or light colored. The following prices are for the top only, no curtains, standards or sockets. For tops ordered without fringe, deduct **$1** net.

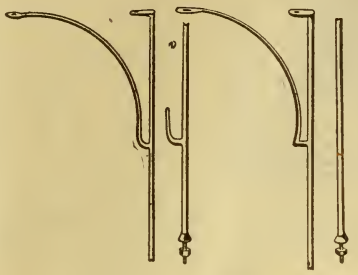
No. 13 Canopy Top, 60 inches long and less.....**$6.50**
No. 13 Canopy Top, from 61 to 72 inches long..... **7.00**
No. 13 Canopy Top, from 73 to 84 inches long..... **7.50**
No. 13 Canopy Top, from 85 to 108 inches long..... **8.50**

CANOPY TOP CURTAINS.

All curtains are made of 50-in. colored or white back material, and where curtains are ordered with tops, we fit the top edge to the canopy top, and send with the curtain enough eyelets, straps, etc., to enable our customers to fit them to the job around the sides and bottom. The sides are made in one piece, and a set includes two side curtains and one back curtain.

No. 1—Curtains, made of heavy enameled drill, per set.....**$3.50**
No. 2—Curtains, made of 22 oz. Diamond rubber, per set..... **4.00**
No. 3—Curtains, made of 22 oz. Fairfield rubber, per set..... **4.50**

CANOPY TOP STANDARDS, SOCKETS AND FITTINGS.

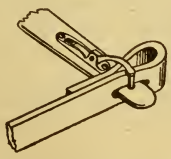


CANOPY TOP STANDARDS.

Canopy tops are used on a great variety of styles of jobs, such as road wagons, buggies, surreys, spring wagons and the like. Sometimes the standards are fastened to the seats and sometimes to the bodies. Therefore we consider it impossible to carry canopy top standards in stock ready for use. We carry them only in halves, as shown in cut, and any blacksmith can easily weld them and shape them to fit the job for which they are to be used. Our standards are ⅝-inch iron.

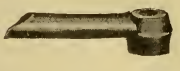
Price, set of four standards.....**$1.50**
Price, set of six standards.....**$2.25**

WABASH TRACE HOLDERS.



A neat contrivance for holding the tugs in place on wood-end singletrees. The best device for this purpose ever produced.

Price, per dozen pairs.....**$1.10**
Price, per pair ..... **.10**



CANOPY TOP SOCKETS.

These are simply the stubs. A blacksmith must weld and fit them to the seat or body as may be required.

Price, per set of four.....**40¢**
Price, per set of six.....**60¢**

CANOPY TOP FITTINGS.
No. 5120.

2¼-in. long, made for ⅝ standard, to bolt to the side of the body, each...**2¢**

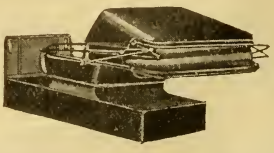
CANOPY TOP FITTINGS.
No. 5130.

3-in. long, made to receive ½-in. end of standard, and bolts to bottom of body, each .....**2¢**

CANOPY TOP FITTINGS.
No. 5150 A.

6-in.x4½-in., made to receive ½-in. end of standard. Made to bolt to bottom of body at corner.....**4¢**

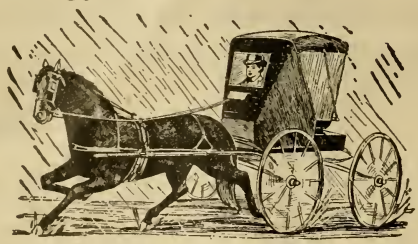
DUST HOODS.



We offer the genuine Blizzard adjustable dust hood, which fits any ordinary buggy. It is made of good 22-oz. black rubber, and is a great protection to any buggy top.

Price, each **$1.50**

"GOSHEN" STORM FRONT.



This storm front is made in a careful manner, with a view to the requirements of those who drive through cold and stormy weather.

The window is very large, made from light weight stock, easily rolled up, size 12x20.

Every part of it subject to wear is strongly re-inforced with leather, and the line pocket is indestructible.

It is easily adjusted to fit all sizes of buggies.

This storm front is quickly and easily attached without leaving the buggy, and when attached fits snugly.

METHOD OF ATTACHING.

It is only necessary to fasten the strap to the front prop on one side and then draw it over the bow and fasten to the front prop on the other side. Then place the lower hooks over the dash on each side, and the clamps on the bow sockets, and the job is done. It requires only a minute to do this.

BUGGY SIZE.

No. 110—Made of 24 oz. leather grain rubber drill, each..... **$1.85**
No. 112—Made of 24 oz. dull finish Melodian cloth, each..... **2.00**
No. 113—Made of waterproof, fleece-lined cloth, each..... **2.25**

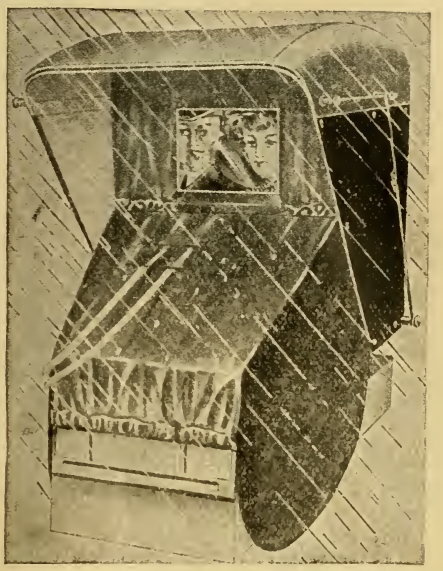
PHAETON SIZE.

No. **114**—Made of 24 oz. leather grain rubber drill, each..... **$2.25**
No. **116**—Made of 24 oz. dull finish Melodian cloth, each..... **2.50**
No. **117**—Made of waterproof, fleece-lined cloth, each..... **2.75**

SPECIAL OFFER.

The No. **110** fronts are the standard size for all buggies, made of good rubber, and any dealer can sell a lot of them. We will make a special price in half dozen lots, of **$1.80** apiece.

DUPLEX STORM FRONT.



The storm front that can be used as a storm apron.

When not in use, the upper part is easily unhooked, rolled up under the apron, and held in that position by two straps placed there for that purpose, thus making a first-class storm apron.

SPECIAL OFFER.

The No. 130 Duplex fronts, are the standard size for all buggies, made of good rubber, and any dealer can sell a lot of them. We will make a special price in half dozen lots, $2.00 apiece.

TALKING POINTS FOR DEALERS.

At the dash it is fastended by means of hooks on either side, connected by strong elastic cord, making it easily adjustable. Up in the top are placed a couple of small hooks in the bow, (permanently), and corresponding grommets in the storm front, with elastic cord between, so that the front can be instantly hooked up in the top, and adjust itself regardless of the width.

At the middle dividing point there is another elastic cord with hooks to hook around the bow sockets at each side.

This is the only storm front with three points of adjustment and consequently the only one which absolutely fits the top.

This front is quickly and easily attached from the inside of the buggy, and absolutely closes up the job tightly.

This front can be used equally well for storm front and storm apron. The change can be made instantly.

The window is 10x18, and is right up close to the driver's face where he can see through it without leaning forward. The fact that the upper portion is inside the top instead of outside, absolutely prevents wind and water from getting in. The window being protected from the snow or sleet means a clear view, all the time.

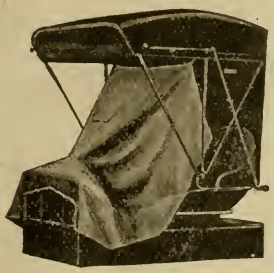
BUGGY SIZE.

No. 130—Made of 24 oz. leather grain rubber drill, each..... **$2.00**
No. 132—Made of 24 oz. dull finish Melodian cloth, each.... **$2.25**
No. 133—Made of waterproof, fleece lined cloth, each..... **$2.50**

PHAETON SIZE.

No. 134—Made of 24 oz. leather grain rubber drill, each..... **$2.50**
No. 136—Made of 24 oz. dull finish Melodian cloth, each.... **$2.75**
No. 137—Made of waterproof, fleece lined cloth, each..... **$3.00**

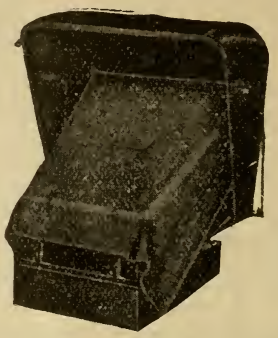
STORM APRONS.



POCKET STORM APRONS

These aprons are made of 22 oz. Diamond rubber, with a pocket which slips over the dash. This style of apron has always been very popular and we make them up in first class style, with the pocket re-inforced with leather, and with straps and rein-hole. They are full length a yard and a half.

	Length of dash	Price each
No. **12**—20 or 21-in. dash		**90¢**
No. **13**—22 or 23-in. dash		**90¢**
No. **14**—24 or 25-in. dash		**90¢**
No. **15**—26 or 27-in. dash		**90¢**
No. **16**—28 or 29-in. dash		**90¢**
No. **17**—30 or 31-in. dash		**90¢**
No. **18**—32 or 33-in. dash		**90¢**



ADJUSTABLE STORM APRONS.

Fastened securely to dash by covered steel clamps. No elastic to wear out. Provided with rein-hole and straps. Measure 54 in. wide and 48 in. from dash to straps. Will fit any dash.

No. **9**—Apron, made of waterproof fleece lined cloth, each..**$1.25**

No. **10**—Apron, made of 22 oz. dull finish Melodian, each.....**$1.00**

No. **11**—Apron, made of 22 oz. leather grain rubber, each.....**$ .90**

No. **19**—Apron, made of dull enameled drill, without straps, or rein-hole, each.....**$ .65**

BUGGY TOP BACK CURTAINS. FOR REPAIR WORK.

When ordering back curtains for repair work, be sure to give us the required length and width of the curtain, also the color of lining.

No. **1**—Back Curtains, made of heavy, colored back, Diamond rubber, either blue or green back, price each.....**$ .75**

No. **2**—Back Curtains, made of 22 oz. Fairfield rubber, and lined with heavy imitation wool cloth, blue or green or light colored, each.....**$1.25**

BUGGY TOP BACK STAYS. FOR REPAIR WORK.

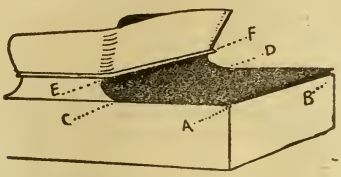
We send out only our regular pattern, 6 inches wide, such as we use on all of our regular buggy tops. Order by number, giving color of lining.

No. **1**—Back stays, covered with 22 oz. Diamond rubber, lined with heavy imitation wool cloth, blue or green, price per pair.....**$ .75**

No. **2**—Back Stays, covered with 22 oz. Fairfield rubber, lined with 6 oz. all-wool blue or green cloth, or light colored, per pair.....**$1.00**

No. **3**—Back Stays, covered with genuine leather, lined with 6 oz. all-wool cloth, blue or green or light colored, per pair.....**$1.50**

BUGGY BOOTS AND BOOT SPRINGS.



GOSHEN BUGGY BOOTS.

This is our special pattern, made with a soft steel frame, which can be adjusted to any angle which the riser may have. Five measurements are required to insure a perfect fit.

A to B, width of body at rear end.

C to D, width of body at base of riser.

E to F, width of body at top of riser.

A to C, distance from back end of body to base of riser.

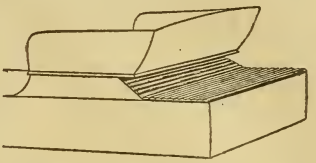
C to E, length of the riser.

No. 15—Boot, covered with enameled drill, leather grain, each....**15¢**

No. 16—Boot, covered with good rubber, leather grain.....**50¢**

No. 17—Boot, covered with genuine enameled leather, each..**$1.00**

These prices do not include springs.



HOWELL BUGGY BOOTS.

These are commonly known as the "Roll-Up" boot, from the fact that they are made with wood strips cross-wise of the box, so that the boot can be rolled up.

In ordering use the same instructions for measuring as on the Goshen Boots.

No. 4—Howell boots, covered with heavy grain rubber, each.....**50¢**

BUGGY BOOT SPRINGS.

These are the best boot springs ever offered to the trade. They are made of the best spring wire, well tempered and fully guaranteed. Length when closed, is 6 inches.

Price per pair.....**4¢**

SIDE CURTAINS.

We have our own patterns for side curtains which fits nearly all ordinary top buggies, and unless a sketch is sent us with the measurements properly marked, we will always send our regular pattern.

When we send out a pair of side curtains we always include enough eyelets and straps to complete them, but these must be placed by our customers. This is easily done without special tools.

No. 1—Side Curtains, made of regular weight, leather grain rubber, such as we use on our No. 1 tops, blue, green or white back, per pair.....**$1.00**

No. 2—Side Curtains, made of extra heavy, leather grain rubber, such as we use on our No. 50 tops, blue, green or whipcord back, per pair.....**$1.25**

When ordering side curtains for buggies which have auto-buggy seats, be sure to send a paper pattern, as we cannot work from a diagram on odd sized curtains.

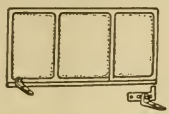
DASHES.

Every dash we sell is strictly No. 1 in quality with No. 1 dash leather, no seconds. We fully guarantee them to be the best on the market.

Prices given on this page include the dash bolts, but not the iron dash feet which must be ordered from the list given on the following page.

These pages give a complete list of the sizes carried in stock, all the time. We can furnish other sizes and styles of dashes, at very low prices, shipping direct from the Ohio dash factory. We will send a complete catalogue upon request, showing all styles, and sizes of dashes and fenders, made by the largest dash factory in the world, for whom we are Sole Agents.

When ordering, give width of body from out to out near the top, where the dash is attached.



STANDARD NO. 1 DASHES.

18x11, straight, price each	$1.05
19x11, straight, price each	1.07
20x11, straight, price each	1.10
21x11, straight, price each	1.12
22x11, straight, price each	1.14
23x11, straight, price each	1.16
24x11, straight, price each	1.19
25x11, straight, price each	1.23
26x11, straight, price each	1.28
27x11, straight, price each	1.30
28x11, straight, price each	1.33
29x11, straight, price each	1.37
30x11, straight, price each	1.41
31x11, straight, price each	1.48
32x11, straight, price each	1.50
33x11, straight, price each	1.56
34x11, straight, price each	1.60
35x11, straight, price each	1.63
36x11, straight, price each	1.67
38x11, straight, price each	1.73
24x13, curved, price each	1.32
25x13, curved, price each	1.37
26x13, curved, price each	1.41
27x13, curved, price each	1.45
24x15, curved, price each	1.46
25x15, curved, price each	1.51
26x15, curved, price each	1.55
27x15, curved, price each	1.59
28x15, curved, price each	1.62
29x15, curved, price each	1.66
30x15, curved, price each	1.70
31x15, curved, price each	1.82
32x15, curved, price each	1.89
33x15, curved, price each	1.97
34x15, curved, price each	2.02
35x15, curved, price each	2.06
36x15, curved, price each	2.11

NO. 102 STRAIGHT DASHES.

With hand holes, for fancy buggies, and driving wagons.

20x13, straight, each	$1.31
21x13, straight, each	1.34
22x13, straight, each	1.37
23x13, straight, each	1.40
24x13, straight, each	1.43
25x13, straight, each	1.49
26x13, straight, each	1.52

NO. 102 STRAIGHT PADDED DASHES.

Suitable for the very finest work. Above cut shows the style.

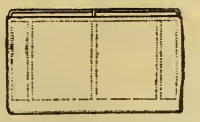
20x15, straight, each	$1.43
21x15, straight, each	1.46
22x15, straight, each	1.49
23x15, straight, each	1.52
24x15, straight, each	1.57
25x15, straight, each	1.62
26x15, straight, each	1.66

NO. 111 CURVED DASHES.

Swell corners for surreys and phaetons.

25x17, curved, each	$1.98
26x17, curved, each	2.03
27x17, curved, each	2.08
28x17, curved, each	2.12
29x17, curved, each	2.16
30x17, curved, each	2.19
32x17, curved, each	2.47

DASHES AND FENDERS.



NO. 451 STRAIGHT PADDED DASHES.
With Japanned, Raised Rail.

This is the very latest in dashes, as it has a japanned raised rail, welded solid to the dash frame, so that it can never get loose. It adds to the height of the dash in appearance, and protects the top edge from wearing out.

20x13, straight, price each..... **$1.40**
21x13, straight, price each..... **1.43**
22x13, straight, price each..... **1.46**
23x13, straight, price each..... **1.49**
24x13, straight, price each..... **1.52**
25x13, straight, price each..... **1.58**
26x13, straight, price each..... **1.61**

DASH FEET.

No. 9—Malleable iron, for piano bodies, 1-in. offset; has a projecting foot to receive toe rail. Price per pair..**10¢**

No. 10—Wrought iron, for piano bodies, 1-in. offset; per pair.....**10¢**

No. 11—Wrought iron, for bracket front road wagon or surrey bodies. Price per pair.....**10¢**

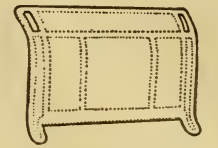
No. 12—Wrought iron, for regular Corning bodies, per pair.....**10¢**

No. 13—Wrought iron, for spring wagon bodies, 1¼-in. offset; pair.....**10¢**

NO. 61 STICK SEAT FENDERS.

Suitable for stick seats and driving wagon seats of all kinds. We always send the irons for attaching them. They are covered with the best dash leather, with "rope twist" handles.

Per pair..... **$2.10**



No. 326.
PIANO BODY WING DASHES.

This is the latest style dash, with wings extending 2½ inches beyond the body on each side. It is a padded dash.

Following sizes only carried in stock:

23x17, price each..... **$3.28**
24x17, price each..... **3.40**
25x17, price each..... **3.52**
26x17, price each..... **3.64**

SWELL TOP SURREY FENDERS.

No. 9½—Front, measure as follows: 23-in. long; 9-in. wide at top; 5½-in. wide at bottom; 15¾-in. from center to center of attaching bars. Price per pair **$2.20**

No. 9—Rear, measure as follows: 52-in. long; 5½-in. wide both at top and bottom; 42¼-in. from center to center of attaching bars; per pair.....**$2.85**

No. 10½—Front, measure as follows: 28-in. long; 9-in. wide at top and 6-in. wide at bottom; 19½-in. from center to center of attaching bars. Price per pair **$2.85**

No. 10—Rear, measure as follows: 56-in. long; 6-in. wide at top and bottom; 47¼-in. from center to center of attaching bars; per pair.....**$3.60**

RE-COVERING OLD DASH AND FENDER FRAMES.

Customers desiring old frames covered should write us and get our proposition before sending in the old irons. As a rule, it costs more to have old irons recovered, than it does to buy new dashes or fenders.

WHIP SOCKETS, SHAFT LEATHERS, STRAPS, ETC.

No. 65 No. 15

No. 3 No. 1

WHIP SOCKETS.

No. 15—Japanned, full metal barrel, per dozen .....**60¢**

No. 65—Best grade, full wood barrel with bell top, and rubber inside, band goes entirely around socket. Price, per dozen .....**80¢**

No. 1—Buffalo Metal whipsockets for leather dash, per dozen.....**70¢**

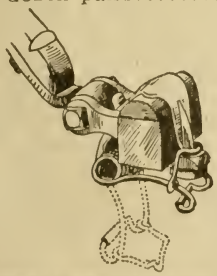
No. 3—Buffalo Metal whipsockets for wood dash, per dozen.....**70¢**

STEEL DRIVE ANTI-RATTLERS.

The best and cheapest. Price is so low you can afford to give them away. Per dozen pairs.....**20¢**

KEYSTONE WIRE ANTI-RATTLER.

Price per dozen pairs.....**25¢**



JOHNSON ANTI-RATTLERS.

They are too well known to need description, and are beyond question the most popular anti-rattler on the market.

No. 1—Regular buggy size, per dozen pairs **$1.00**

No. 2—Surrey size, per doz. prs. **1.15**

Either size less than full dozen pairs, price per pair.....**10¢**

ROLL-UP STRAPS.

Made of leather, nicely stitched, per pair .....**5¢**

SHAFT LEATHERS IN SETS.

Cut from good, soft dash leather.

Set No. 1—Consisting of four pieces 6 inches square, and two point leathers 24-in. long. Price, per set.....**35¢**

Set No. 2—Consisting of four pieces 6 inches square, and two point leathers 36-in. long. Price, per set.....**50¢**

SHAFT LEATHERS SOLD IN SEPARATE PIECES.

Cut from good, soft dash leather.

Pieces 6-in. square, each..... **3¢**

Point leathers 24-in. long, pair.....**25¢**

Point leathers 36-in. long, pair.....**40¢**

FLAT SHAFT STRAPS IN SETS.

Made of first-class harness leather, ⅞ wide. Properly creased and finished.

Set No. 5—Consisting of two pieces 8-in. long; two pieces 10-in. long; and two pieces 12-in. long; six pieces to a set. Per set.....**10¢**

FLAT SHAFT STRAPS SOLD IN SEPARATE PIECES.

Made of first-class harness leather.

⅞ wide x 8-in. long, per 100.....**$1.50**

⅞ wide x 10-in. long, per 100..... **1.75**

⅞ wide x 12-in. long, per 100..... **2.00**

ROUND SHAFT STRAPS.

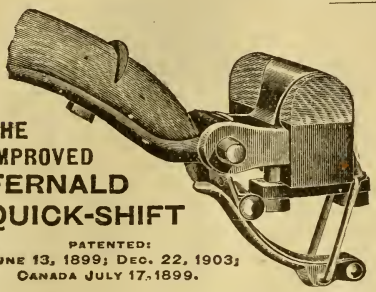
Made of first-class harness leather, standard size, four pieces to a set. Price, per set.....**20¢**

TUFTING TWINE.

No. 12—Italian Flax, in half-pound balls, per ball.....**15¢**

No. 400—Extra quality, Mattress twine, in half-pound balls, per ball.....**25¢**

QUICK SHIFTERS, AXLE WASHERS AND THIRD SEATS.



Best and strongest quick shifting device on the market. Easiest to put on. By its use, pole or shafts can be taken out or put in instantly, without the use of tools.

No. 1—Regular buggy size, per dozen pairs **$2.00**

No. 2—For surreys or spring wagons, per dozen pairs **$2.00**

Either size, when ordered in less than a dozen pairs, per pair ..... **18¢**

FOLDING CHAIRS.

These chairs find a useful place in motor boats, carriages, automobiles, and all sorts of vehicles, and serve many purposes outside of vehicles, besides.

They are simple, strong, and surprisingly comfortable.

Size: Seat, 10½-in. x 11-in.; height to seat, 16-in.

The frame is made of round steel, finely japanned. Trimming is brown duck, with back and seat padded.

Price each **$1.25**

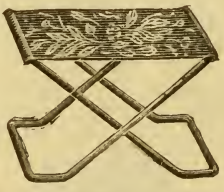
COIL AXLE WASHERS.

⅞	100 in a box, per box	**12¢**
1	100 in a box, per box	**12¢**
1⅛	100 in a box, per box	**15¢**
1¼	100 in a box, per box	**18¢**

SOLE LEATHER AXLE WASHERS.

Five sets in a box. We do not break boxes.

⅞	Washers, per box	**12¢**
1	Washers, per box	**12¢**
1⅛	Washers, per box	**15¢**
1¼	Washers, per box	**18¢**



No. 10 THIRD SEATS.

These seats allow three people to ride comfortably on the seat of any carrage.

Seat measures 9-in. x 9-in.; height is 7½-in.

Covered with Brussels carpet.

Price each ..... **40¢**

DOUBLE CARPET THIRD SEATS.

Same as our No. 10 Seats, except covered with Brussels carpet both top and bottom.

Price each ..... **55¢**

CARRIAGE CLOTH, CARPET, ETC.

ALL-WOOL CARRIAGE CLOTH.

Guaranteed Fast Color, and full 54-in. wide. Strictly all wool.

For Lining Tops.	Per Yd.
No. 599—Blue, 6 oz.	$0.45
No. 599—Green, 6 oz.	.45
No. 701—Blue, 8 oz.	.65
No. 701—Green, 8 oz.	.65
For Trimming Seats.	
No. 507—Blue, 12 oz.	1.10
No. 507—Green, 12 oz.	1.10
No. 509—Blue, 14 oz.	1.25
No. 509—Green, 14 oz.	1.25
No. 511—Blue, 16 oz.	1.50
No. 511—Green, 16 oz.	1.50

UNION CARRIAGE CLOTH.

Has all the appearance of all-wool cloth, but is part cotton. Wears well, and is full 54-in. wide.

For Lining Tops.	Per Yd.
No. 60—Blue, 6 oz.	35¢
No. 60—Green, 6 oz.	35¢
For Trimming Seats.	
No. 188—Blue, 14 oz.	75¢
No. 188—Green, 14 oz.	75¢

LIGHT COLORED WHIPCORD.

Guaranteed full 54-in. wide, and suitable for very best seat trimming. Send for samples.

No. 483—Whipcord, 12 oz., yd.. $1.00
No. 663—Whipcord, 14 oz., yd.. 1.25

LIGHT COLORED TOP LINING.

Suitable only for lining tops, to match whipcord trimmings.

No. 431—54-in. wide, per yard.... 50¢

CARRIAGE CARPET.

No. 21—Fine quality tapestry brussels, 36-in. wide, plain solid color, very dark green. This color will match almost any color of trimming. Per yard..... 90¢

No. 500—Reversible loop carpet, alike on both sides. Dark green with lighter green or red stripe running through it. 27-in. wide. Per yard ..... 40¢

CARRIAGE CARPET. Cut to Size, and Bound.

No. 1—Full length carpet to fit any ordinary size piano body, using No. 21 carpet, described above. Price each $1.25

No. 2—Full length carpet to fit any ordinary size piano body, using No. 500 carpet, described above Price each ..... 75¢

RUBBER MATTING.

Carried in stock in rolls, 27-in. wide, a good corrugated pattern, suitable for fine carriage carpets. Can be trimmed to size with knife. Per yard ..... 70¢

PLUSH.

Genuine red car plush for carriage or sleigh trimming. Best quality.

No. 90—24-in. wide, per yard.... $1.15

HEAVY COLORED WADDING.

In pieces of 12 yards; thick and heavy for carriage trimming.

Price, per piece..... 75¢

CORDUROY.

First quality goods. 27-in. wide.

Dark brown, per yard..... 50¢
Light tan color, per yard..... 50¢

Small samples, envelope size, furnished upon request, providing our customer gives us an exact description of each sample wanted.

We use these goods in our own trimming department. Therefore we always have a fresh, clean stock of the best quality.

RUBBER DRILL AND ENAMELED GOODS.

FAIRFIELD RUBBER DRILL.

The best rubber on the market; the grain imitates leather perfectly. Full weight. We recommend this brand of rubber for all kinds of work where a reliable, waterproof cloth is desired. It will not crack or peel off.

Weight	Width	Per Yd.
20 oz., white	back, 50-in	38c
22 oz., white	back, 50-in	40c
26 oz., white	back, 50-in	44c
28 oz., white	back, 50-in	46c
32 oz., white	back, 50-in	50c
22 oz., green	back, 50-in	46c
22 oz., blue	back, 50-in	46c
28 oz., green	back, 50-in	52c
28 oz., blue	back, 50-in	52c

FAIRFIELD MELODIAN CLOTH.

For aprons. Dull finish rubber.

22 oz.,	50 in. wide, white back	45c

DIAMOND RUBBER DRILL.

Finely finished, imitation leather grain. A first-class quality rubber. We can recommend it for storm aprons, side curtains, etc.

Weight	Width	Per Yd.
20 oz., white	back, 50-in	35c
22 oz., white	back, 50-in	37c
28 oz., white	back, 50-in	43c
22 oz., blue	back, 50-in	43c
22 oz., green	back, 50-in	43c
14 oz., blue	back, 36-in	33c
14 oz., green	back, 36-in	33c
18 oz., green	back, 36-in	37c
18 oz., blue	back, 36-in	37c
18 oz., whipcord	back, 36-in	40c

ENAMELED DRILL AND DUCK.

This is a complete line of enameled oil cloth, leather grain, the best quality that money can buy. We recommend this line of enameled goods for covering canopy tops, or other framework. It has the exact appearance of leather.

Width	Kind of Goods	Per Yd.
50-in.,	Black drill, leather grain	27¢
50-in.,	Gum drill, dull finish	27¢
48-in.,	Tan back (moleskin)	35¢
50-in.,	Glazed drill, smooth	27¢
45-in.,	Glazed muslin, smooth	20¢
45-in.,	Enameled muslin	20¢
50-in.,	Enameled duck	34¢
60-in.,	Enameled duck	47¢
48-in.,	Enameled drill, blue-back	34¢
48-in.,	Enameled drill, green-back	34¢

ENAMELED DRILL IN COLORS.

On the following, the face side of the goods is colored. Used for cheap cushion work, fancy welts., etc.

	Per Yd.
Dark green drill, 50-in	35¢
Maroon drill, 50-in.	35¢
Tan color drill, 50-in	35¢

Small samples, envelope size, furnished upon request, providing our customer gives us an exact description of each sample wanted.

We use these goods in our own trimming department. Therefore we always have a fresh, clean stock of the best quality.

CARRIAGE LEATHER.

Our prices per square foot are based on furnishing full hides, running from 50 to 55 feet. When a customer asks us to cut leather to size, giving us the length and width of a piece, we must stand the waste, and therefore make an extra charge per square foot, when leather is cut to size, of.....5¢

FANCY TRIMMING LEATHER.

Experiments made from time to time with cheap grades of leather, such as split leather, D. B. leather, and all forms of "doped" leather, indicate that it is unwise to handle them. A good reliable M. B. trimming leather is always the most satisfactory for every purpose.

No. 96, M. B.—Black trimming leather, dull finish, per sq. ft.....23c

No. 88, M. B.—Tan color trimming leather, dull finish, per sq. ft.....23c

No. 78, M. B.—Maroon or dark wine color trimming leather, dull finish, per sq. ft.....23c

BRIGHT ENAMELED LEATHER.

For Buggy Tops or Cushions.

No. 1—Black enameled top leather, M. B. grade, per sq. ft.....25¢

No. 10—Black enameled top leather, split leather grade, per sq. ft.15¢

WHITE COTTON DUCK.

Known to the trade as "sail duck," which is double woven, and goes by number, not by weight. For wagon covers.

36-in., No. 10 duck, per yard..... 30c

52-in., No. 10 duck, per yard..... 45c

BUCKRAM.

No. 20—Single Buckram, per yd.10¢

No. 160—Double Buckram, pr yd.20¢

ARTIFICIAL LEATHER.

These goods possess good wearing qualities, and perfectly imitate genuine leather in appearance.

MORROCOLINE.

The best substitute for leather ever invented. Full 50-in. wide.

No. 876—Morrocoline, very dark green, almost black, per yard.....75c

No. 803—Morrocoline, maroon or dark wine color, per yard.....75c

No. 882—Morrocoline, tan color, per yard 75c

EXCELSIOR ARTIFICIAL LEATHER.

No. 800—Dull finish black, 48-in. wide, good quality, per yard.....60¢

CARRIAGE TRIMMERS' BINDING.

FLAT GIMP.

½-in. wide. Full piece contains 25 yds.

No. 1—Made of dark green enameled drill, per yard.....1¢

No. 2—Made of maroon enameled drill, per yard.....1¢

No. 3—Made of tan color enameled drill, per yard.....1¢

No. 12—Made of black artificial leather, per yard.....2¢

No. 10—Made of black, genuine leather, per yard.....9¢

PLAIN CUSHION WELT.

⅝-in. wide, With cord inside. Full pieces run about 50 yards.

No. 4—Made of bright black enameled drill, per yard.....2¢

No. 6—Made of dull black imitation leather, per yard.....3¢

No. 7—Made of dark green enameled drill, per yard.....2¢

No. 8—Made of black, genuine leather, per yard.....9¢

COMBINATION WELT AND GIMP.

With cord inside, along one edge.

No. 5—Made of bright black rubber drill, per yard.....3¢

No. 9—Made of dark green enameled drill, per yard .....2¢

No. 13—Made of black artificial leather, per yard.....3¢

No. 11—Made of black, genuine leather, per yard.....12¢

SUPPLIES FOR AUTOMOBILE TOP MAKERS.

AUTO TOP FABRICS.

We are large builders of automobile tops, and jobbers of automobile top fabrics.

We are in a position to quote extremely low prices on these goods in full rolls, and can furnish many other styles and designs of fabrics besides those here listed.

We have selected for our regular stock, a few items which are in general demand, and we will sell these goods in cut lengths, as many yards as may be ordered, at these prices.

These goods are fully guaranteed against leaking or fading within one year.

MOHAIR.

No. 79—Pepper and Salt pattern, silk finish, very dark, heavy weight, 54 in. wide, per yard..**$1.00**

No. 63—Pepper and Salt pattern, cotton imitation mohair, suitable for side curtains to go with No. 79, 36 in. wide, per yard.....**50¢**

No. 441—Striped pattern, very dark, silk finish, heavy weight, 54 in. wide, per yard.....**$1.20**

No. 453—Striped pattern, cotton imitation mohair, suitable for side curtains to go with No. 441 mohair, 36-in. wide, per yard.....**75¢**

CRISSY CLOTH.

This cloth has a dull finish rubber surface. Has the appearance of Pantasote. Fine wearing qualities. Easily cleaned and cared for.

No. 32—Heavy weight, suitable for auto tops, 54 in. wide, drab lining, per yard 75c

No. 22—Light weight, suitable for side curtains to go with No. 32, drab lining, 36 in. wide, per yard.**50¢**

AUTO TOP STRAPS.

We handle nothing but first-class dependable straps. On our regular work we use only black straps, but can quote prices on russet straps upon application.

On our regular work we use flat straps only, for front straps, but can quote on round front straps upon application.

No. 4—Front straps in pairs, 66 in. long over all. Lower part of the strap carries a japanned snap at the bottom, and japanned roller buckle at the other end. The upper part of the strap is finished at the upper end with a japanned snap. Straps are 1 in. wide, good stock. Per pair **$1.00**

No. 5—Back Stay straps in pairs. 26 in. long over all. Made of strong black leather, flat, 1 inch wide. Upper end and lower end are finished with japanned footman loops, and the strap has japanned roller buckle in the middle. Price per pair .....**50¢**

No. 8—Hold-down or Prop straps, ¾x24, with common buckle at one end and stitched leather loop. In pairs. Price per pair.....**25¢**

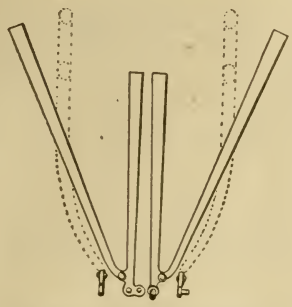
BOW COVERING FABRIC.

We carry in stock, uncoated cotton drill, dyed to match the inside of the mohair and other auto top fabrics. This uncoated material is suitable for covering the bows, making pads, etc. Uncoated Black or Drab drill, 54 in. wide, per yard..... 20c

Small samples, envelope size, furnished upon request, providing our customer gives us an exact description of each sample wanted

We use these goods in our own trimming department. Therefore we always have a fresh, clean stock of the best quality.

SUPPLIES FOR AUTOMOBILE TOP MAKERS.



AUTO BOW SOCKETS.

Made very strong, to go with auto bows, 1x1½ in. size. Other sizes and lengths can be furnished on ten days' notice.

For Four-Bow Touring Car Tops.

No. 1 Bow Sockets. These are made with 2-in. curve or offset, and the front tube is made adjustable. Lengths from front to back are 30-in., 22-in.—22-in., 30-in. Price per set.....**$2.60**

No. 2 Bow Sockets. These are made straight without any offset, and the front tube is made adjustable. Lengths from front to back are 31 in., 22 in.—22 in., 31 in. Price per set.....**$2.35**

Three-Bow Auto Sockets.

These sockets are shaped like ordinary three-bow buggy sockets, except that the front tube is made adjustable, and all of the sockets are very much stronger and heavier than buggy sockets.

No. 8 Bow Sockets are suitable for making Runabout Tops. Front tube 31 in. Middle tube 22 in. Rear tube 31 in. long. Per set.**$2.00**

No. 9 Bow Sockets are suitable for making tops for trucks or runabouts. Front tube 25 in. Middle tube 26 in. Rear tube 32 in. Per set **$2.00**

ROADSTER SOCKETS.

No. 5 Bow Sockets. These are made for the Scoop or Roadster top, straight without any offset, and front socket is adjustable. For two-passenger car. Lengths from front to back are 34 in., 25 in.—26 in., 28 in. Price per set.....**$2.60**

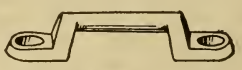
SNAP LOOPS.

No. 9310—Japanned. Used in connection with common snaps. Price each .....**2¢**

BOW SEPARATORS.

Used for the purpose of separating the bows when top is laid back. Six pairs to a set.

Nickel plated, per set.....**25¢**
Japanned, per set.....**20¢**



FOOTMAN LOOPS.

Standard size and pattern for auto top work.

Japanned, price each .....**2¢**
Brass, price each.....**3¢**

OVAL HEAD SCREWS.

Sizes especially suitable for auto top work, for attaching curtain fasteners, separators, footman loops, etc.

We have in stock the following sizes in Brass finish, Japan finish and Nickel Plated. In ordering, state which is wanted.

¾-in., No. **6**, per gross.....**15¢**
1 -in., No. **6**, per gross.....**20¢**
⅞-in., No. **9**, per gross.....**20¢**
1¼-in., No. **10**, per gross.....**25¢**

SUPPLIES FOR AUTOMOBILE TOP MAKERS.

The number of different styles and sizes of tops which we make requires us to carry a considerable stock of sizes and patterns of these irons, but we are here listing the most popular sizes. Other sizes furnished promptly upon request.

For dimensions of No. 1 and No. 2 taper, see page 15.

MIDDLE GOOSENECK IRONS.

No. 212—A. 1-in. high, ½-in. out. No. 2 taper, price each.....**15¢**

No. 312—A. 1-in. high, ½-in. out. No. No. 1 taper, price each.....**15¢**

No. 202—F. 2-in. high, ¼-in. out. No. 2 taper, price each.....**15¢**

No. 302—F. 2-in. high, ¼-in. out. No. 1 taper, price each.....**15¢**

FRONT GOOSENECK IRONS.

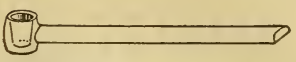
No. 306—B. 2-in. high, 5/8-in. out. No. 1 taper, price each.....**15¢**

No. 201—B. 1 7/8-in. high, 2 5/8-in. out. No. 2 taper, price each....**15¢**

No. 301—B. 1 7/8-in. high, 2 5/8-in. out. No. 1 taper, price each....**15¢**

SNAPS.

No. 2—Japanned snaps, made for 1-in. straps, price each.....**5¢**



FINISHED SEAT IRONS.

With taper hole for standard ¾ post. Strap part, 14 in. long; size, 1¼ x 1/8. Useful in ironing auto seats to receive goosenecks.

No. 1868—A. Price each .....**25¢**

REAR PROP IRONS.

We have designed a new hanger iron, which is intended to meet the requirements of every car, regardless of whether the hole in the seat iron is large or small taper, or square. This new iron will fit them all. We carry them in three lengths, as follows:

No. 25—A. 6-in. drop, each.....**15¢**

No. 25—B. 7-in. drop, each.....**15¢**

No. 25—C. 8-in. drop, each.....**15¢**

Special Notice.

All Rear Prop Irons are made to be used with our Prop Rests **No. 9302.**

AUTO PROP RESTS.

No. 9302—Made to fit any of our rear prop irons, listed above. Slotted for a strap, to hold the bows down when top is laid back. Price per pair .....**20¢**

JOINT ENDS.

Auto tops usually require hand-made joints. Stump joints to go with these joint ends are listed on another page. Tied in sets of four pieces, two pieces 28 in., and two pieces 18 in.

No. 1630—C. 5/8 x 3/8 oval, set....**50¢**

No. 1630—F. ¾ x 3/8 oval, set....**60¢**

TACKS, LINING NAILS, AND BUTTONS.

GENUINE SWEDES IRON TACKS.

In full weight papers. 12 papers in a package.

	Price per paper	Price per doz. papers
2½ oz.	4¢	$0.35
3 oz.	4¢	.40
4 oz.	5¢	.45
6 oz.	6¢	.60
8 oz.	7¢	.70
10 oz.	9¢	.80
12 oz.	10¢	.95
16 oz.	12¢	1.20

GENUINE SWEDES IRON TACKS.

In bulk. One pound in a package. We do not break these packages.

2½ oz. in bulk, per pound	16¢
3 oz. in bulk, per pound	15¢
4 oz. in bulk, per pound	13¢
6 oz. in bulk, per pound	12¢
8 oz. in bulk, per pound	10¢
10 oz. in bulk, per pound	10¢
12 oz. in bulk, per puond	10¢
16 oz. in bulk, per pound	10¢

CLOTH COVERED TACKS.

10 oz. One gross in a paper.

Dark green, per gross	18¢
Dark blue, per gross	18¢
Whipcord, per gross	20¢

GIMP TACKS.

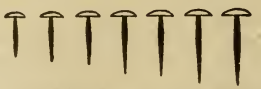
One dozen papers in a package.

2½ oz., per doz. papers	50¢
Less than doz., per paper	5¢
4 oz., per doz. papers	55¢
Less than doz., per paper	6¢
6 oz., per doz. papers	70¢
Less than doz., per paper	7¢

JAPANNED SADDLE NAILS.

75 in a paper.

18 oz., No. 3 Head, per paper	10¢
16 oz., No. 4 Head, per paper	10¢
1¼-in. long, No. 4 Head, per paper	10¢



JAPANNED LINING NAILS.
Capped Head.

75 in a paper. 20 papers in a package. Following sizes in stock 4 oz., 6 oz., 8 oz., 10 oz., 12 oz., 14 oz. and 16 oz.

Price per full package of 20 papers of any of the above sizes	90¢
Less than a package, per paper	5¢

JAPANNED LINING NAILS.
Solid Head.

In bulk. One pound in a package. We do not break packages.

4 oz. in bulk, per pound	20¢
6 oz. in bulk, per pound	18¢
8 oz. in bulk, per pound	15¢
12 oz. in bulk, per pound	15¢

SILVER FINISH LINING NAILS.

75 in a paper. 20 papers in a package. Following sizes in stock; 4 oz., 8 oz. and 12 oz.

Price per full package of 20 papers of any of the above sizes, per package	$1.10
Less than package, per paper	7¢

METALINE FINISHING NAILS.

Dark green, maroon or tan color, per 100	10c
Full box of 1000	60c

CLOTH COVERED BUTTONS.

22 line, one gross in a paper.

Dark green, per gross	18¢
Dark blue, per gross	18¢
Whipcord, per gross	20¢

MELONITE BUTTONS.

22 line, one gross in a paper.

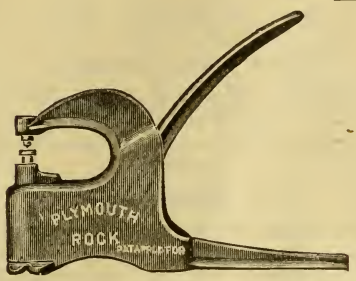
Dark green, per gross	10¢
Maroon, per gross	10¢
Tan color, per gross	10¢

JAPANNED METAL BUTTONS.

22 line, one gross in a paper.

Black, bright finish, per gross	10¢

LEATHER WASHERS, CURTAIN LIGHTS, FLEXIBLE GLASS, AND OTHER TRIMMINGS.

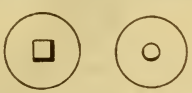


RIVETING MACHINES.

These are handy tools. They are used on hollow rivets of all kinds, and are strong and well made.
Price each .....**30¢**

FLEXIBLE GLASS.

Also known as transparent celluloid, and Pyralin sheeting. Fine clear stock, suitable for lights in curtains of carriages, automobiles, storm fronts, etc.
Full sheets, 20x36, price each.....**60¢**
Half sheets, 18x20, price each.....**35¢**
Quarter sheets, 10x18, price each...**20¢**
When ordered by mail, add **25¢** for cost of packing and postage.



PROP BLOCK WASHERS.

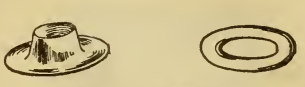
Made of patent leather to fit regular size prop irons.
No. 1—Square hole, per doz.....**10¢**
No. 2—Round hole, per doz.....**10¢**

ANTI-FRICTION TOP PROP WASHERS.

Made of anti-friction metal, standard size for $\frac{7}{16}$ props. In one pound packages, per pound.....**25¢**

SOLE LEATHER PROP WASHERS.

For regular $\frac{7}{16}$ props. 200 in a box.
Price per 100.....**12¢**



BRASS GROMMETS.

Used for canopy top curtains, awning work and various purposes.
No. 2—$\frac{5}{16}$-in. hole, per gross.....**40¢**
Less than full gross, per doz..... **5¢**
No. 4—½-in. hole, per gross....**$1.00**
Less than full gross, per doz.....**10¢**

SETTING DIES FOR BRASS GROMMETS.

Size for No. 2 Grommet, per set..**$1.75**
Size for No. 4 Grommet, per set.. **1.75**

TUBULAR RIVETS.

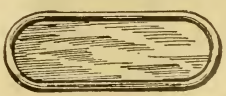
Length 6-16, price per 100.....**15¢**

MIRROR LIGHTS.

For use in back stays in buggy tops.
No. 5—Opening 2½x1¾, doz.....**50¢**
Less than full dozen, each..... **5¢**

CURTAIN LIGHTS.
Square Corners.

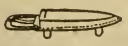
No. 12—Opening 1¼x5, doz.....**27¢**
Less than full dozen, each..... **5¢**
No. 15—Opening 1⅝x5⅜, doz....**40¢**
Less than full dozen, each..... **5¢**



CURTAIN LIGHTS.
Oval Pattern.

No. 24—Opening 1⅝x5⅜, doz....**50¢**
Less than full dozen, each..... **5¢**

BUCKLE LOOPS, CURTAIN STRAPS, TOP PROP NUTS, AND OTHER TRIMMINGS.

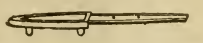


SINGLE BUCKLE LOOPS.

Sold separately, without the straps.

No. **1**—Japanned, imitation stitched.
Full box of 100, per box.....**$1.50**
Less than full box, each ..... **2¢**

No. **2**—Genuine leather covered.
Full boxes of 100, per box.....**$5.50**
Less than full box, each .....**6¢**

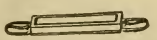


SINGLE BUCKLE LOOP STRAPS.

Sold separately, without the loops.

No. **1**—Japanned, imitation stitched.
Full boxes of 100, per box.....**$1.50**
Less than full box, each ..... **2¢**

No. **2**—Genuine leather covered.
Full boxes of 100, per box.....**$5.50**
Less than full box, each .....**6¢**



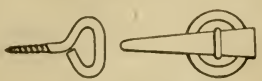
DOUBLE BUCKLE LOOPS.

No. **1**—Japanned, imitation leather-stitched, full boxes of 100.....**$1.50**
Less than full box, each ..... **2¢**

No. **2**—Genuine leather covered.
Full boxes of 100, price.....**$5.50**
Less than full box, each .....**6¢**

CURTAIN STRAPS.

No. **90**—Good straps, well made, put up in packages of one hundred.
Price per 100, full package .....**90¢**
Less than full packages, each..... **1¢**



WAGON CURTAIN PATCHES.

Packages contain one gross and screw eyes are included with them.

No. **4**—Regular size, gross **$2.25**
Less than full gross, each.....**2¢**
No. **5**—Large size, full gross....**$3.25**
Less than full gross, each .....**3¢**

PROP BLOCK RUBBER.

Standard size, good goods and well finished in two-foot strips.
Price per strip .....**20¢**

LEATHER COVERED PROP REST.

Used in place of prop rubber on high grade work. Per pair .....**15¢**

CATELY TOP SPRING AND LEVER.

For raising and lowering the top from the inside.

Levers, per set .....**40¢**
Springs, per set .....**35¢**

WROUGHT IRON BEVEL JOINT RIVETS.

No. **10**—Regular size, price doz...**20¢**

TOP PROP NUTS.

For 3-8 or 7-16 Props.

No. **72**—Japanned, imitation stitches, in full gross boxes, per gross.**90¢**
Less than one gross, doz.....**10¢**

No. **21**—Silver finished nuts in full one gross boxes. Per gross....**$2.00**
Less than gross, per doz.....**20¢**

Unless than otherwise ordered we send ⅜ nuts.

TOP PROP NUTS.

For Automobile Tops.

Plain polished finish, measuring 1½ in. in diameter. They fit regular ⅞ top props.

No. **15**—A.	Jap., per gross.....	**$1.25**
No. **15**—A.	Jap., per dozen.....	**.15**
No. **15**—B.	Brass, per gross....	**2.50**
No. **15**—B.	Brass, per dozen...	**.30**

KNOBS, EYELETS, CURTAIN FASTENERS AND CANOPY TOP FRINGE.

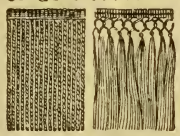
No. 1 No. 18 No. 3 No. 55X

KNOBS.

Japanned. One gross in a paper.

No. Per Gross.

1—Drive knob, single curtain....**30¢**
3—Rivet knob, single curtain....**35¢**
72—Rivet knob, double curtain....**40¢**
18—Screw knob, single curtain....**45¢**
27—Screw knob, double curtain....**50¢**
55X—Back stay knob.....**65¢**
Any of the above styles, except 55X in less than full gross papers, doz.**5¢**
No. 55X—Per doz. .....**8¢**



5-in. 7-in.

CANOPY TOP FRINGE.

Blue, Green or Drab.

5-in. fringe, per yard.....**20¢**
7-in. fringe, per yard.....**25¢**

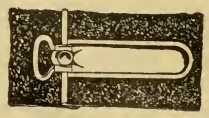
CANOPY TOP HOOKS.

With eyelets, price each.....**1¢**

EYELETS.

One Gross in a paper.

No. 2—Famous Dickerson Eyelet, guaranteed to hold the knob securely, per gross.....**27¢**
No. 1—Common eyelet, with genuine harness leather center, gross .....**35¢**
Either of the above less than full gross, per dozen .....**5¢**



HIGGINS CURTAIN FASTENER.

For the back curtain to be used in connection with No. 55X, back stay knobs, per dozen.....**50¢**

PATCHES.

OVAL PATTERN KNOB

One gross in paper. Without leathers.

No. 9—Japanned, dozen.....**05¢**
No. 9—Nickeled, dozen.....**10¢**

MURPHY CURTAIN FASTENERS.

For Automobile or Carriage Tops.

Furnished in brass finish, Japanned finish, or nickel plated. All the same price. When ordering, state which finish is required.

These curtain fasteners are usually attached with screws. For prices on the screws, see page 44. Where the fasteners are to be attached to a shifting rail, order our 5/8 solid rivets, price per dozen.....**10¢**

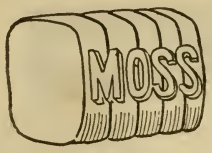
Where the fasteners are to be attached to back stays or similar work, order our Split Rivets with plates, price per dozen.....**10¢**

If curtain fasteners are ordered in gross lots, and rivets in a corresponding quantity, we give customers fifty per cent discount from above prices on rivets.

Screws or rivets must be ordered separately, but every Single Curtain fastener carries with it One Eyelet and One Washer for same. Every Double Curtain fastener carries with it Two Eyelets and Two Washers for same.

No. 200—Single Curtain Fasteners, per dozen .....**25¢**
Per gross **$2.75**
No. 201—Double Curtain Fasteners, per dozen .....**45¢**
Per gross **$4.75**

CARRIAGE TRIMMERS' SUPPLIES, THREAD, ETC.

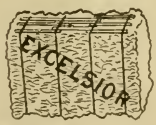


MOSS.

Supplied to us direct from the Southern ginnery. We guarantee this moss to be stricty XXXX grade, hand picked, double ginned. In full bales of about 150 lbs., price per lb.....8½¢
In less than full bales, price per pound .....11¢

CURLED HAIR.

Our standard quality of curled hair, which can be used on the best carriage or automobile work, price per lb..... .....24c



COMMON FINE EXCELSIOR.

In full bales of about 100 lbs., per lb. .....1½¢
Less than a bale, per lb.....2¢

GENUINE WOOD WOOL.

In full bales of about 100 lbs., per lb.2¢
Less than a bale, per lb.....3¢

SPOOL THREAD.

We carry in stock black spool thread, No. 532 of the highest quality, silk finish, on 2 oz. spools, price per spool.....15¢

LINEN THREAD IN BALLS.

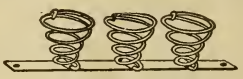
Ours is the genuine linen thread, put up in half pound balls.
No. 432—Price, per ball.....$1.00
No. 532—Price. per ball..... 1.10

CUSHION SPRINGS.

Our cushion springs are double knotted, No. 10 high carbon spring wire, 2½ inches high. The best on the market, per dozen.....20¢

BACK SPRINGS.

Our back springs are 4½ inches high, single knotted, No. 14 high carbon spring wire, per dozen....15¢



CUSHION BANDS.

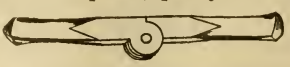
These steel bands carry three cushion springs, and are easily and quickly attached to the cushion frame. We have them 16 inches and 17 inches long over all. Price per band .....5¢

PASTE.

We handle a very fine quality of dry trimmer's paste. All that is needed to prepare this paste is to stir it up with cold water. In one pound packages, per lb.....15¢

STAY WEBBING.

3 inches wide; 70 yards to piece. Price per full piece.....$1.25
Less than full piece, per yard.....2¢



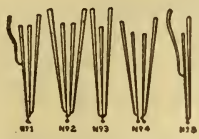
M. AND F. STUMP JOINTS.

No. 1627—E. ⅝x½, each.....14¢
No. 1627—F. ¾x½, each.....20¢

THOMAS TOP PROPS.

Malleable iron, the only perfect prop ever produced. Per full set.....9¢

BOW SOCKETS, JOINTS, RAILS, ETC.



BOW SOCKETS.

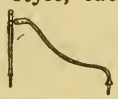
We handle the highest grade of bow sockets on the market. They are made with steel stiffeners and hardwood fillers.

No. **1**—Handy sockets, full set....**85¢**
No. **2**—Four-Bow, full set .....**75¢**
No. **3**—Three-Bow, full set .....**65¢**
No. **4**—Extension Top, full set.....**85¢**
No. **5**—Rams Horn, full set.....**75¢**

SINGLE SEPARATE SOCKETS.

We sell these largely for repair work. When ordering, it is important that we should know whether the desired socket is for a three-bow or four-bow top; whether for right or left hand side; and whether front, rear, or middle sockets.

Price for any style, each.....**15¢**



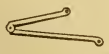
LAZY BACK IRONS.
Side Arms.

These are regular size, suitable for narrow or wide lazy backs. Price, per pair .....**15¢**

Back Standards.

We carry these in two styles.

No. **1**—For narrow lazy back boards. Price, per pair.....**10¢**
No. **2**—For wide lazy back boards. Price, per pair.....**10¢**



CONCEALED JOINTS.

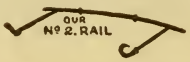
Heavy ribbed pattern, japanned.

11-in., per pair..... 6c
12-in., per pair..... 6c
13-in., per pair..... 7c
16-in., per pair..... 8c
17-in., per pair..... 9c
18-in., per pair.....11c

ADJUSTABLE QUARTER RAILS.

These are finished behind with acorn tips on each side, not to be welded behind as in the case of the complete rails shown below. Fitted with adjustable clips.

Price, without lazy back irons.....**50¢**



No. 2 AND No. 3 SHIFTING RAILS.

We ship these in halves, to be welded in the center, at the back, to make them the correct length to fit the seat.

No. **2** Rails, fitted with adjustable clips for seats already ironed....**50¢**

No. **3** Rails, with holes in the rail, for seats on which the irons can be shifted to match the holes in the rails. Price .....**50¢**

Prices of these rails do not include the lazy back irons, which are sold separately.

No. 4 SURREY RAILS.

These rails are japanned, and are suitable for use on any buggy, surrey or phaeton seat having a solid high board lazy back.

Price, each .....**60¢**

JAPANNED TOP JOINTS.

These joints or braces are finished complete, our regular pattern, $\frac{5}{16}$ oval iron. In ordering state whether for three or four-bow top.

Price, per full set.....**55¢**

GEARS.

For many years we followed the plan of other jobbers in buying our gears from an eastern manufacturer and having them shipped direct from his factory. The objections to this plan are many. It means a high rate of freight, and slow delivery. It means that when wheels are ordered with the gear, there are two freight bills to pay.

To overcome these many objections, we have built and are now operating our own gear factory, new and complete in every detail. The men in charge are old experienced gear men, whose work is the best that money can buy. We have improved and strengthened all of the irons, making many new patterns, which are far stronger and heavier than those in common use. At the same time we have taken pains to keep the sizes the same as those in gears we formerly sold so that the parts of our new gears will interchange with the parts of the gears which we formerly sold.

PROMPT SHIPMENTS.

We carry gears in stock in knock-down shape, so that we can make up any size or style that may be wanted, and get it out in a hurry.

When wheels are ordered with the gear, we set the boxing off of the gear in the wheels, at an extra charge of.....**25¢**

Wheels and gear will then be shipped together, and also shafts or pole, if ordered with gear, will be properly fitted to the gear without extra charge.

Thus we will give our customers the best service in this line of any firm in the United States.

SUITABLE SIZES OF WHEELS.

In describing gears on the following pages, we give under each one the height of wheels most suitable. As to sizes, we recommend the following table, but will vary this to suit customers' requirements:

For gears with 1 -in. axle, order wheels, 1 -in. tire, 1⅛-in. spoke.
For gears with 1⅛-in. axle, order wheels, 1⅛-in. tire, 1¼-in. spoke.
For gears with 1¼-in. axle, order wheels, 1¼-in. tire, 1⅜-in. spoke.
For gears with 1⅜-in. axle, order wheels, 1⅜-in. tire, 1$\frac{7}{16}$-in. spoke.
For gears with 1½-in. axle, order wheels, 1½-in. tire, 1½-in. spoke.

On another page in this book we give full lists of sizes, grades and heights of wheels we carry in stock, together with prices with and without tire.

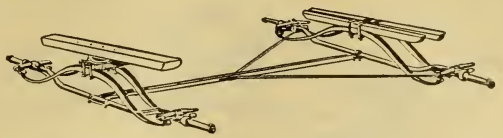
SUITABLE SIZES OF POLES AND SHAFTS.

For all gears except buggy gears and full platform gears, we recommend our double bent heel shafts, and our poles which are made with straight cross bars instead of curved circles.

While this is not absolutely essential, customers will always get good results by so ordering. See pages on which these goods are fully described.

For gears with 1-in. and 1⅛-in. axles we recommend No. 94 shafts and No. 18 poles.

For gears with 1¼, 1⅜, or 1½-in. axle, we recommend No. 96 shafts and No. 19 poles. Shafts are seldom used with gears larger than 1¼-in. axles.



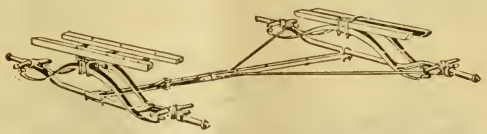
No. 24 IMPROVED STANDARD DUPLEX GEAR.

This gear carries our improved trunnions and fifth wheel, making it the strongest and best Duplex gear on the market. The advantage of a Duplex gear lies in the fact that it hangs the body very low and is easily and quickly attached.

There should be four inches difference between front and rear wheels to make gear hang level and standard height is 40 and 44 inches.

Made in two widths of track, 4-8 and 5 ft. When ordering state which is wanted, also give length and width of body and size of axle.

Size Number	Size of Axles	Front Spring	Rear Springs	Capacity	Price
No. 1	1	1¼x3 lf.	1¼x4 lf.	800 lbs.	**$ 9.50**
No. 2	1⅛	1¼x4 lf.	1¼x5 lf.	1000 lbs.	**10.75**
No. 3	1¼	1½x4 lf.	1½x5 lf.	1500 lbs.	**12.75**
No. 4	1⅜	1½x5 lf.	1½x6 lf.	1800 lbs.	**16.00**
No. 5	1½	1¾x5 lf.	1¾x6 lf.	2500 lbs.	**20.25**



No. 27 GOSHEN IMPROVED SHORT TURN DUPLEX GEAR.

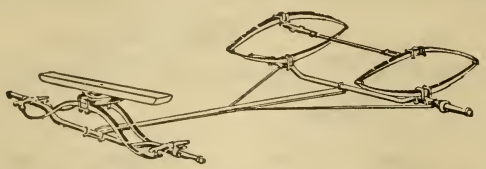
This gear carries our improved and strengthened short turn fifth wheel and our improved trunnions, making it the best short turn gear on the market. This improved short turn fifth wheel, on account of having the king bolt far back of the axle, has the effect in making a turn, of throwing the body away from the front wheel so that a shorter turn can be made. It also enables the purchaser to use a body four inches wider, and still turn as short as with the standard Duplex gear. Please note that with this gear, the body hangs low down between the wheels. The front wheels do not turn under the body, as many people suppose.

There should be four inches difference between front and rear wheels to make gear hang level, and standard height is 40 and 44 inches.

Made in two widths of track, 4—8 and 5 ft. When ordering, state which is wanted, also give length and width of body and size of axle.

Size Number	Size of Axles	Front Spring	Rear Springs	Capacity	Price
No. 1	1	1¼x3 lf.	1¼x4 lf.	800 lbs.	**$10.75**
No. 2	1⅛	1¼x4 lf.	1¼x5 lf.	1000 lbs.	**12.00**
No. 3	1¼	1½x4 lf.	1½x5 lf.	1500 lbs.	**14.50**
No. 4	1⅜	1½x5 lf.	1½x6 lf.	1800 lbs.	**17.25**
No. 5	1½	1¾x5 lf.	1¾x6 lf.	2500 lbs.	**22.00**

When wheels are ordered with the gear, we set the four boxing off of the gear in the wheels for 25c, and ship gear and wheels together.



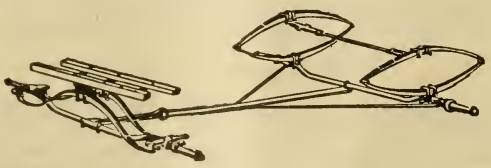
No. 25 COMBINATION DUPLEX AND ELLIPTIC GEAR.

This gear combines the front part of our Standard Duplex gear with the well known Elliptic style of rear springs, which makes a splendid combination. We call especial attention to the very fine body hangers used in connection with the rear springs.

There should be four inches difference between front and rear wheels to make gear hang level, and standard height is 40 and 44 inches.

Made in two widths of track—4-8 and 5 ft. When ordering, state which is wanted, also give length and width of body and size of axle.

Size Number	Size of Axles	Front Spring	Rear Springs	Capacity	Price
No. 1	1	1¼x3 lf.	1¼x3 lf.	800 lbs.	**$10.50**
No. 2	1⅛	1¼x4 lf.	1¼x4 lf.	1000 lbs.	**11.75**
No. 3	1¼	1½x4 lf.	1½x4 lf.	1500 lbs.	**14.50**
No. 4	1⅜	1½x5 lf.	1½x5 lf.	1800 lbs.	**17.25**
No. 5	1½	1¾x5 lf.	1½x6 lf.	2500 lbs.	**22.00**



No. 28 COMBINATION SHORT TURN DUPLEX AND ELLIPTIC GEAR.

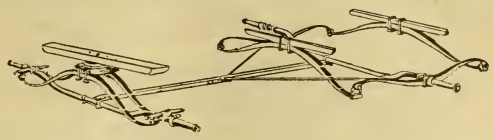
This gear combines the front part of our Short Turn Duplex gear with the well known elliptic style of rear springs. All the avantages which are obtained by using the Short Turn style of Duplex gear can also be claimed for this gear.

There should be four inches difference between front and rear wheels to make gear hang level, and standard height is 40 and 44 inches.

Mae in two widths of track, 4-8 and 5 ft. When ordering, state which is wanted, also give length and width of body and size of axle.

Size Number	Size of Axles	Front Spring	Rear Springs	Capacity	Price
No. 1	1	1¼x3 lf.	1¼x3 lf.	800 lbs.	**$11.75**
No. 2	1⅛	1¼x4 lf.	1¼x4 lf.	1000 lbs.	**12.75**
No. 3	1¼	1½x4 lf.	1½x4 lf.	1500 lbs.	**15.50**
No. 4	1⅜	1½x5 lf.	1½x5 lf.	1800 lbs.	**18.25**
No. 5	1½	1¾x5 lf.	1½x6 lf.	2500 lbs.	**23.00**

When wheels are ordered with the gear, we set the four boxing off of the gear in the wheels for 25c, and ship gear and wheels together.



No. 26 COMBINATION DUPLEX AND PLATFORM GEAR.

This gear combines the front part of our Standard Duplex gear with the "four square" style of platform rear springs, thus making one of the best gears that we manufacture. The advantages of the platform rear part are well known, and we can strongly recommend it for all kinds of purposes. We furnish good, strong hickory bars on all of our gear work.

There should be four inches difference between front and rear wheels to make gear hang level, and standard height is 40 and 44 inches.

Made in two widths of track, 4-8 and 5 ft. When ordering state which is wanted, also give length and width of body and size of axle.

Size Number	Size of Axles	Front Spring	Rear Springs	Capacity	Price
No. 1	1	1¼x3 lf.	In	800 lbs.	**$11.75**
No. 2	1⅛	1¼x4 lf.	proportion	1000 lbs.	**13.25**
No. 3	1¼	1½x4 lf.	to	1500 lbs.	**15.50**
No. 4	1⅜	1½x5 lf.	the	1800 lbs.	**18.25**
No. 5	1½	1¾x5 lf.	capacity	2500 lbs.	**22.50**

No. 29 COMBINATION SHORT TURN DUPLEX AND PLATFORM GEAR.

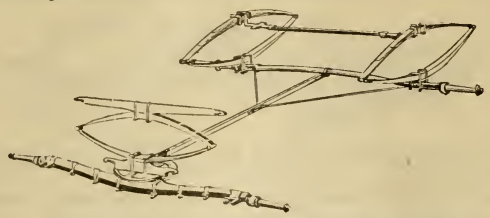
Same as the one above except that it combines the front part of our Short-Turn Duplex gear with the "four-square" style of platform rear springs. For heavy work, this gear is absolutely unequaled.

There should be four inches difference between front and rear wheels to make gear hang level, and standard height is 40 and 44 inches.

Made in two widths of track, 4-8 and 5 ft. When ordering, state which is wanted, also give length and width of body and size of axle.

Size Number	Size of Axles	Front Spring	Rear Springs	Capacity	Price
No. 1	1	1¼x3 lf.	In	800 lbs.	**$13.00**
No. 2	1⅛	1¼x4 lf.	proportion	1000 lbs.	**14.50**
No. 3	1¼	1½x4 lf.	to	1500 lbs.	**16.75**
No. 4	1⅜	1½x5 lf.	the	1800 lbs.	**20.00**
No. 5	1½	1¾x5 lf.	capacity	2500 lbs.	**24.50**

When wheels are ordered with the gear, we set the four boxing off of the gear in the wheels for 25c, and ship gear and wheels together.



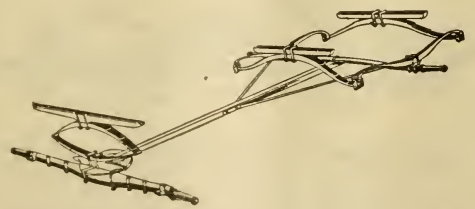
No. 33 STANDARD THREE SPRING GEAR.

Unless otherwise ordered, we make this gear for the body to be hung on body loops, thus dropping down behind the front spring, as is usually the case. If so ordered, we will make it so that the body will set on top of the front spring, as is the case where there is a toe board on the body. In either case, the gear will be built so that the front wheels will strike the body in turning, and there should be four inches difference between front and rear wheels to make the gear hang level. Standard height of wheels is 40 and 44 inches.

This gear is strongly made throughout, and carries the finest short turn fifth wheel ever invented.

Made in two widths of track, 4-8 and 5 ft. When ordering, state which is wanted, also give length and width of body and size of axle.

Size Number	Size of Axles	Front Spring	Rear Springs	Capacity	Price
No. 1	1	1½x3 lf.	1¼x3 lf.	800 lbs.	**$11.50**
No. 2	1⅛	1½x4 lf.	1¼x4 lf.	1000 lbs.	**12.75**
No. 3	1¼	1½x5 lf.	1½x4 lf.	1500 lbs.	**15.50**
No. 4	1⅜	1¾x5 lf.	1½x5 lf.	1800 lbs.	**18.25**



No. 42 COMBINATION END SPRING AND PLATFORM GEAR.

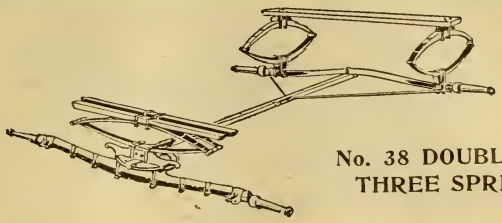
Unless otherwise ordered, we make this gear for the body to be hung on body loops, thus dropping down behind the front spring, as is usually the case. If so ordered, we will make it so that the body will set on top of the front spring as is the case where there is a toe board on the body. In either case, the gear will be built so that the front wheels will strike the body in turning.

There should be four inches difference between front and rear wheels to make gear hang level, and standard height is 40 and 44 inches.

Made in two widths of track, 4-8 and 5 ft. When ordering state which is wanted, also give length and width of body and size of axle.

Size Number	Size of Axles	Front Spring	Rear Springs	Capacity	Price
No. 1	1	1½x3 lf.	In	800 lbs.	**$12.75**
No. 2	1⅛	1½x4 lf.	proportion	1000 lbs.	**14.25**
No. 3	1¼	1½x5 lf.	to the	1500 lbs.	**16.75**
No. 4	1⅜	1¾x5 lf.	capacity	1800 lbs.	**18.50**

When wheels are ordered with the gear, we set the four boxing off of the gear in the wheels for 25c and ship gear and wheels together.



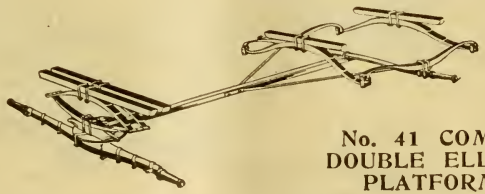
No. 38 DOUBLE ELLIPTIC THREE SPRING GEAR.

This gear is made for the body to set on top of the springs, and makes a first class job for any wagon carrying a toe board on the body. The body hangs low between the wheels, and the front wheels strike the body in turning. There should be four inches difference in height between the front and rear wheels, to make the gear hang level. 40 and 44 inches is the standard height.

The famous double elliptic spring is used on the front end of this job, and the fifth wheel is the finest short turn fifth wheel ever invented. This is a splendid gear for all kinds of work.

Made in two widths of track, 4-8 and 5 ft. When ordering state which is wanted, also give length and width of body and size of axle.

Size Number	Size of Axles	Front Spring	Rear Springs	Capacity	Price
No. 1	1	No. 1	1¼x3 lf.	800 lbs.	**$12.75**
No. 2	1⅛	No. 2	1¼x4 lf.	1000 lbs.	**14.25**
No. 3	1¼	No. 3	1½x4 lf.	1500 lbs.	**17.00**
No. 4	1⅜	No. 4	1½x5 lf.	1800 lbs.	**19.50**



No. 41 COMBINATION DOUBLE ELLIPTIC AND PLATFORM GEAR.

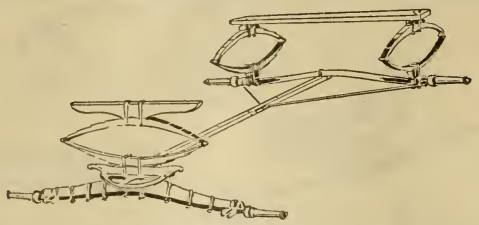
This gear is made for the body to set on top of the springs, and makes a first class job for any wagon carrying a toe board on the body. The body hangs low between the wheels, and the front wheels strike the body in turning. There should be four inches difference in height between the front and rear wheels, to make the gear hang level. 40 and 44 inches is the standard height.

The famous double elliptic spring is used on the front end of this job, and the fifth wheel is the finest short turn fifth wheel ever invented. This is a splendid gear for all kinds of work.

Made in two widths of track, 4-8 and 5 ft. When ordering state which is wanted, also give length and width of body and size of axle.

Size Number	Size of Axles	Front Spring	Rear Springs	Capacity	Price
No. 1	1	No. 1	In	800 lbs.	**$14.50**
No. 2	1⅛	No. 2	proportion	1000 lbs.	**16.00**
No. 3	1¼	No. 3	to the	1500 lbs.	**18.50**
No. 4	1⅜	No. 4	capacity.	1800 lbs.	**22.00**

When wheels are ordered with the gear, we set the four boxing off of the gear in the wheels for 25c, and ship gear and wheels together.



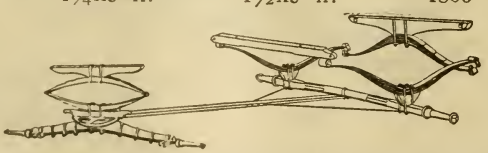
No. 35 CUT-UNDER THREE SPRING GEAR.

By using an arched front axle, this gear is built up in such a way that the front wheels turn under the body. The body sets on top of the springs. This gear is made especially to meet the demands of city trade, as it is possible to use a very wide body, and still make a very short turn. The reach is heavily ironed, and the reach braces extra strong. The fifth wheel is a very heavy full circle wheel, with king bolt behind the axle.

To make this gear hang level the front wheels must be 34 inches high and the rear wheels 46 inches high. To change these heights would require a change in the entire manner of building the gear.

Made in two widths of track, 4-8 and 5 ft. When ordering state which is wanted, also give length and width of body and size of axle.

Size Number	Size of Axles	Front Spring	Rear Springs	Capacity	Price
No. 1	1	1½x3 lf.	1¼x3 lf.	800 lbs.	**$12.25**
No. 2	1⅛	1½x4 lf.	1¼x4 lf.	1000 lbs.	**13.75**
No. 3	1¼	1½x5 lf.	1½x4 lf.	1500 lbs.	**17.00**
No. 4	1⅜	1¾x5 lf.	1½x5 lf.	1800 lbs.	**20.00**



No. 46 CUT-UNDER HALF-PLATFORM GEAR.

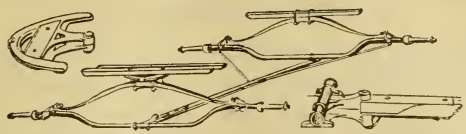
The general style is the same as the Cut-Under three spring, except that we use platform springs, behind. The front wheels turn under the body and we guarantee the job to be strongly ironed for heavy service.

To make this gear hang level the front wheels must be 34 inches high and the rear wheels 46 inches high. To change these heights would require a change of the entire method of building this gear.

Made in two widths of track, 4-8 and 5 ft. When ordering state which is wanted, also give length and width of body and size of axle.

Size Number	Size of Axles	Front Spring	Rear Springs	Capacity	Price
No. 1	1	1½x3 lf.	In	800 lbs.	**$13.75**
No. 2	1⅛	1½x4 lf.	proportion	1000 lbs.	**16.00**
No. 3	1¼	1½x5 lf.	to the	1500 lbs.	**20.25**
No. 4	1⅜	1¾x5 lf.	capacity	1800 lbs.	**23.50**

When wheels are ordered with the gear, we set the four boxing off of the gear in the wheels for 25c, and ship gear and wheels together.



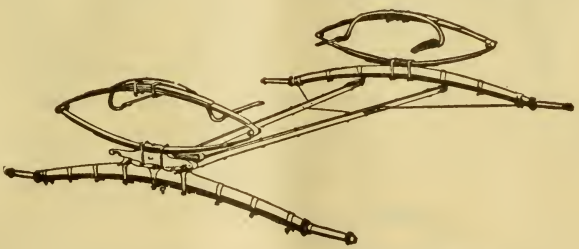
No. 31 HANDY WAGON GEAR.

For parts and repairs for this gear, see pages where fifth wheels are listed.

This makes a very light, strong gear for general purpose wagons. We use a short turn fifth wheel, and the gear is well ironed and strongly made throughout. There should be four inches difference in height between front and rear wheels to make this gear hang level. Standard height of wheels is 40 and 44 inches.

Made in two widths of track, 4-8 and 5 ft. When ordering state which is wanted, also give length and width of body and size of axle.

Size Number	Size of Axles	Front Spring	Rear Springs	Capacity	Price
No. 1	1	1⅜x4 lf.	1⅜x4 lf.	800 lbs.	**$7.50**
No. 2	1⅛	1½x5 lf.	1½x6 lf.	1000 lbs.	**9.00**
No. 3	1¼	1½x6 lf.	1½x7 lf.	1500 lbs.	**11.00**



No. 9 GOSHEN HIGH-ARCH GEAR.

This is the most desirable pattern of high-arch gear ever put on the market. Axles are arched three inches. Gear is ironed with the Wilcox rear king bolt, full wrought Brewster fifth wheel, the best fifth wheel that money can buy. Springs are full elliptic, open head.

Axles are $\frac{15}{16}$ Collinge Collar (Long Distance) swedged. The woodwork is fitted and finished in the well known workmanlike manner that marks all of our gears. Front spring 1¼x3 leaf. Rear spring 1¼x4 leaf. In ordering, state whether wide or narrow track. Give length and width of body. State whether wood spring bars or Bailey loops are wanted. Do not fail to order this gear by number.

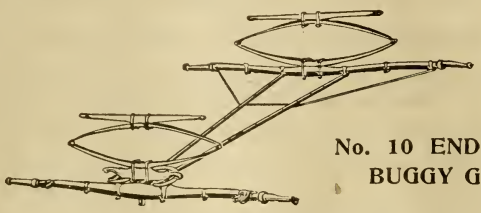
No. 9—Gear, with wood spring bars.....**$10.50**
No. 9—Gear, with Bailey loops..... **11.00**

When wheels are ordered with the gear, we set the four boxing off of the gear in the wheels for 25c, and ship gear and wheels together.

BUGGY GEARS.

All of our buggy gears are made in two widths of track, 4-8 and 5 ft. In ordering be sure to state which is wanted. Also be sure to give us the following information, without which order cannot be properly filled.

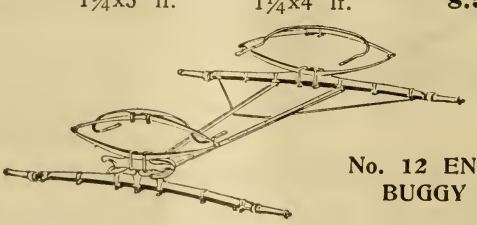
Shall the axles be dropped or arched? Dropped sent unless otherwise ordered. Shall the track be wide or narrow? Narrow track sent unless otherwise ordered. Give length and width of body. Shall we put on wood spring bars or Bailey loops? Wood spring bars sent unless otherwise ordered. Don't fail to order by number.



No. 10 END SPRING BUGGY GEARS.

These gears might well be called the standard trade gear, as we make them like those used on regular factory buggies, with the best malleable iron fifth wheel that we can buy, and Collinge collar (Long Distance) swedged axles. The springs are high grade, button head, full sweep springs. The above cut shows wood spring bars and drop axles, but we also make them with Bailey loops and arch axles, as per cut of No. 12 gear.

Size Number	Size of Axles	Front Spring	Rear Spring	Price with Wood bars	Price with Bailey loops
No. 10—A	⅞	1¼x3 lf.	1¼x4 lf.	**$8.25**	**$8.75**
No. 10—B	1⅛	1¼x3 lf.	1¼x4 lf.	**8.25**	**8.75**
No. 10—C	**1**	1¼x3 lf.	1¼x4 lf.	**8.50**	**9.00**



No. 12 END SPRING BUGGY GEARS.

These gears are made for those who are willing to pay a little more to get a good article. This is the best Buggy gear that we can make. We do not think as good a gear has ever been offered to the trade. We use on them Wilcox Rear King-Bolt, full wrought iron Brewster fifth wheel, the best ever invented. We use Open Head Elliptic springs, and Collinge collar (Long Distance) swedged axles. The bed is well fitted to the axles. Entire gear is finished to perfection.

The above cut shows Bailey loops and arch axles, but we also make them with wood bars and drop axles, as per cut of No. 10 gear.

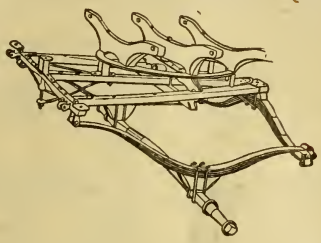
Size Number	Size of Axles	Front Spring	Rear Spring	Price with Wood bars	Price with Bailey loops
No. 12—A	⅞	1¼x3 lf.	1¼x4 lf.	**$9.50**	**$10.00**
No. 12—B	1⅛	1¼x3 lf.	1¼x4 lf.	**9.50**	**10.00**
No. 12—C	1	1¼x3 lf.	1¼x4 lf.	**9.75**	**10.25**

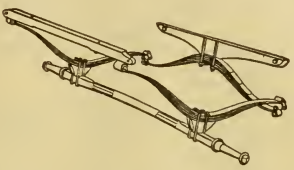
Do not fail to read the above important notice before ordering.

When wheels are ordered with the gear, we set the four boxing off of the gear in the wheels for 25c, and ship gear and wheels together.

FULL PLATFORM GEARS.

As we do not carry any of these in stock, we require a week or ten days to fill orders for "front platform only," shipped direct from Ohio factory. On platform jobs complete, which are always shipped from Goshen, we require from three to four weeks to fill an order. So far as we know, no firm in the country can beat this.





This cut shows a full platform gear, ironed complete, with springs and axles; top gearing and spring bars ready to receive the body. On pages 62 and 63 will be found cuts of the platform gears only, which we term the "front platform only;" and we also have in stock a full line of axles; springs, etc., which we can furnish to those who wish to put up their own jobs complete.

There are four styles of platform gears which are most commonly used.

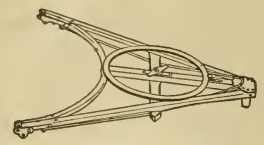
First—Those numbers from 1 to 4, represent a line of gears which are suitable for light delivery wagons; two seated spring wagons and the like; where there is 4 inches difference in height between front and rear wheels, and the front wheels will strike the body in turning.

Second—Those numbers from 6-L to 7-H represent a line of gears suitable for light delivery wagons and similar jobs where the front wheels are made to turn under the body. Shafts or drop pole must be used on such gears. They are for light work.

Third—Those numbers from 17-L to 18-H represent a line of gears for medium heavy work, such as light drays carrying 1500 to 3000 lbs. We usually send these with stiff pole attachments so that they may be used with shafts; stiff pole; or drop pole.

Fourth—Those numbers from 32-L to 34-H represent a line of gears for regular drays, wagons or trucks, carrying heavy loads. These gears are all made for stiff pole only.

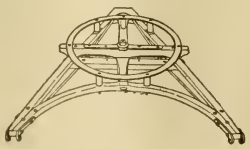
We furnish any of the above styles put up complete ready for the body. The cut shows one of the third styles of gears, a No. 18. In ordering, please give width of body; width of track; height of wheels which will be used; state whether body is to be hung level or sloping toward the rear; and state whether shafts, drop pole or stiff pole will be used.



PLATFORM GEARS No. 1 TO 4.

These are suitable for use with high front wheels which strike the body in turning, and where shafts or drop pole is used.

Number of Gear	Usual Size Axles	Usual Size Springs	Front Platform Only	Complete with Axles, Springs, Top Gearing, Ready for Body.	Suitable Poles	Suitable Shafts
1—L	1 x 6½	1¼ x 4 & 5 x 38 & 40	$5.25	$22.00	$8.00	$5.00
1—LX	1 x 6½	1¼ x 4 & 5 x 40 & 42	5.25	23.00	8.00	5.00
3—L	1⅛ x 7	1½ x 4 & 5 x 38 & 40	5.25	24.00	8.00	5.00
3—LX	1⅛ x 7	1½ x 4 & 5 x 40 & 42	5.25	24.50	8.00	5.00
3—M	1¼ x 7	1½ x 5 & 6 x 40 & 42	5.85	26.50	8.00	5.00
3—H	1⅜ x 7	1½ x 6 & 7 x 40 & 42	6.15	31.75	8.50	5.00
4—L	1¼ x 7	1¾ x 4 & 5 x 38 & 40	6.45	28.25	8.50	5.00
4—LX	1¼ x 7	1¾ x 4 & 5 x 40 & 42	6.45	28.75	8.50	5.00
4—M	1⅜ x 7	1¾ x 5 & 6 x 40 & 42	6.75	31.75	8.50	5.00
4—H	1½ x 8	1¾ x 6 & 7 x 40 & 42	7.30	36.25	8.50	5.00

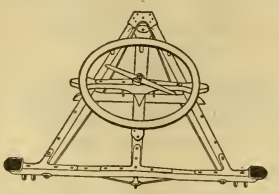


PLATFORM GEARS No. 6 AND No. 7.

These are suitable for use with low front wheels which turn under the body and where shafts or drop pole are used.

Number of Gear	Usual Size Axles	Usual Size Springs	Front Platform Only	Complete with Axles, Springs, Top Gearing. Ready for Body.	Suitable Pole	Suitable Shafts
6—L	1⅛ x 7	1½ x 4 & 5 x 38 & 40	$6.75	$25.25	$8.50	$5.00
6—M	1¼ x 7	1½ x 5 & 6 x 40 & 42	7.30	27.75	8.50	5.00
6—H	1⅜ x 7	1½ x 6 & 7 x 40 & 42	7.90	33.00	8.50	5.00
7—L	1¼ x 7	1¾ x 4 & 5 x 38 & 40	7.90	28.75	9.00	5.00
7—M	1⅜ x 7	1¾ x 5 & 6 x 40 & 42	8.50	33.75	9.00	5.00
7—H	1½ x 8	1¾ x 6 & 7 x 40 & 42	9.35	40.75	9.00	5.00

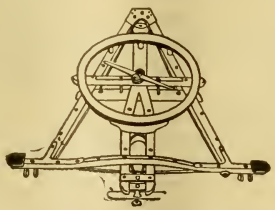
In naming a price on this page on pole or shafts, we figure on furnishing same ironed complete in white with singletrees, etc., ready for use.



PLATFORM GEARS No. 17 AND No. 18.

These gears are made with stiff pole attachment, which can be left off if our customer desires to always use shafts instead of pole. They are made for use with low front wheels which turn under the body.

Number of Gear	Usual Size Axles	Usual Size Spring	Front Platform Only	Complete with Axles, Springs, Top Gearing. Ready for Body.	Stiff Pole Suitable Size
17—L	1¼ x 7	1¾ x 4 & 5 x 38 & 40	**$13.20**	**$35.50**	**$ 9.50**
17—M	1⅜ x 7	1¾ x 5 & 6 x 40 & 42	**13.75**	**40.50**	**10.00**
17—H	1½ x 8	1¾ x 6 & 7 x 40 & 42	**14.40**	**44.50**	**10.25**
18—L	1½ x 8	2 x 6 & 7 x 40 & 42	**14.95**	**47.00**	**10.25**
18—M	1⅝ x 8	2 x 7 & 8 x 40 & 42	**15.55**	**51.00**	**11.00**
18—H	1¾ x 9	2 x 8 & 9 x 40 & 42	**16.10**	**58.00**	**11.50**



PLATFORM GEARS No. 32, No. 33 AND No. 34.

These are suitable for heavy work, with stiff pole, and are made for use with low front wheels which turn under the body.

Number of Gear	Usual Size Axles	Usual Size Spring	Front Platform Only	Complete with Axles, Springs, Top Gearing. Ready for Body	Stiff Pole Suitable Size
32—L	1½ x 8	2 x 6 & 7 x 40 & 42	**$19.75**	**$54.75**	**$12.00**
32—M	1⅝ x 8	2 x 7 & 8 x 40 & 42	**20.50**	**59.00**	**12.00**
32—H	1¾ x 9	2 x 8 & 9 x 40 & 42	**21.00**	**66.50**	**12.00**
33—L	1⅝ x 8	2¼ x 7 & 8 x 40 & 42	**22.25**	**64.00**	**14.00**
33—M	1¾ x 9	2¼ x 8 & 9 x 40 & 42	**23.25**	**70.75**	**14.00**
33—H	1⅞ x 9	2¼ x 9 & 10 x 40 & 42	**24.50**	**80.00**	**14.00**
34—L	1¾ x 9	2½ x 8 & 9 x 40 & 42	**25.00**	**81.50**	**15.00**
34—H	2 x 10	2½ x 10 & 11 x 40 & 42	**28.00**	**87.00**	**15.00**

VEHICLE BODIES.

PIANO BODIES.

We make a specialty of carrying at all times a large stock of piano bodies. They have the best hardwood frames, and genuine poplar panels capable of taking a high finish. We carry those sizes in stock which are listed on this page; ready for instant shipment. Measurements are always taken on the bottom outside. Our prices as given below, include the body with a common seat; without irons and without paint.

Deduct 90¢ when bodies are ordered without seats.

Sizes in Stock	Price each
18 x 50 with seat	$4.00
18 x 52 with seat	4.00
18 x 54 with seat	4.00
19 x 52 with seat	4.00
20 x 50 with seat	4.00
20 x 52 with seat	4.00
20 x 54 with seat	4.00
21 x 52 with seat	4.00
22 x 50 with seat	4.00
22 x 52 with seat	4.00
22 x 54 with seat	4.00
22 x 56 with seat	4.00
23 x 50 with seat	4.00
23 x 52 with seat	4.00
23 x 54 with seat	4.00
24 x 50 with seat	4.00
24 x 52 with seat	4.00
24 x 54 with seat	4.00
24 x 56 with seat	4.00
25 x 52 with seat	4.00
25 x 54 with seat	4.00
26 x 52 with seat	4.00
26 x 54 with seat	4.00
26 x 56 with seat	4.00

IRONING BODIES.

We frequently do this work for our customers in our blacksmithing department, making reasonable charges for the work as follows:

For furnishing and attaching dash feet we charge ..... **25¢**

For furnishing and attaching toe rail, we charge ..... **20¢**

For furnishing steps (these we cannot attach), we charge ..... **25¢**

For furnishing rub irons (these we can not attach), common style..... **10¢**

Good Roller Rub Irons..... **25¢**

For putting full length bottom irons on body, we charge..... **50¢**

For furnishing and attaching common body loops, we charge..... **60¢**

For furnishing and attaching Bailey body loops, we charge..... **$1.00**

Body loops cannot be attached unless we know the exact distance between the springs, and in case of common loops, we must know also the distance from hole to hole in the spring bars.

PAINTING BODIES.

For painting any of these bodies in a first-class manner, our charge is **$3.00.** We carry four sizes in stock painted, as follows: 22x54, 22x56, 24x54, 24x56.

Our price of painting refers only to the body. When a trimmed seat is ordered with a body, the price of painting the seat will be found on the same page, with the trimmed seat, in this catalog.

COMPLETE JOBS.

By ordering a body, without seat, and then ordering a trimmed seat from the pages of this catalogue, a customer can get his job complete. In all such cases where we know that the seat and body are for the same job, we fit the seat to the body, Select the size of body wanted, and we will fit the seat to it.

VEHICLE BODIES.
(Continued.)

No. 17 SPRING WAGON BODY.

This body is intended for regular four-passenger spring wagons, being made with a heavy hardwood frame, and poplar panels, 8-in. high. The bottom boards run cross-wise of the body. We also make a heavy spring wagon body for general-purpose wagons, which will be found fully described, on the next page. The prices here given include the body, with two seats, and two pairs of seat risers, without irons, and without paint.

Deduct **$2.50** when these bodies are ordered without seats and without seat risers.

Sizes in Stock.

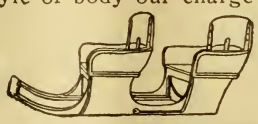
32-in. x 6½ ft., solid end gate	**$6.50.**	Drop end gate	**$7.00**
32-in. x 7 ft., solid end gate	**6.50.**	Drop end gate	**7.00**
34-in. x 6½ ft., solid end gate	**6.50.**	Drop end gate	**7.00**
34-in. x 7 ft., solid end gate	**6.50.**	Drop end gate	**7.00**
36-in. x 6½ ft., solid end gate	**6.50.**	Drop end gate	**7.00**
36-in. x 7 ft., solid end gate	**6.50.**	Drop end gate	**7.00**

IRONING No. 17 BODIES.

This work includes running a strip of band iron along the top edges, ironing the seats with seat irons, and ironing the seat risers, and attaching the seat fasteners. Dash Feet are also attached. Rub irons and steps are not included in the price, as they cannot be attached.

For ironing bodies with solid end gate, as above, our charge is..... **$1.50**

Ironing bodies with drop end gates, includes the end gate irons in addition to the above, and for that style of body our charge is..... **2.00**



No. 85 SURREY BODY.

This fine surrey body has hardwood frame, poplar panels and poplar seats. Size 26x72 on the bottom outside. The price includes the body with two seats; without irons and without paint. Price each..... **$13.00**

ODD SIZED BODIES.

We have a special department of our body factory where hand made bodies are made. When we receive orders for odd sizes not included in this list, we place the order in that department. Sometimes when this department is crowded with orders, there is considerable delay in filling orders for odd sizes.

We make a net extra charge for odd size bodies of.. **$1.50**

No. 150 CORNING BODY.

24x50 on bottom, flares at end, taking same length gear as 54-in. piano bodies.

With seat, price each..... **$4.25**

Without seat, price each..... **3.35**

No. 5 ROAD WAGON BODY.

24x50½ on bottom.

With seat, price each..... **$4.00**

Without seat, price each..... **3.10**

SPRING WAGON BODIES.

To supply the great demand for a spring wagon body at a reasonable price for general purposes, we offer the special line of spring wagon bodies shown on this page, which are made in our factory here in Goshen. In making these bodies, we use a flooring of hard pine, which runs lengthwise of the body and is held together by four heavy hardwood cross pieces. The sides are made of selected basswood 7/8-in. thick and are fastened to the bottom by good strong strap bolts. Around the top we put a finishing strip of beveled oak, giving the body the appearance of paneled work. The drop end gate is made of hard wood. The body is 8-in. deep inside.

These bodies are in great demand for delivery wagons and general purposes. Some of our customers prefer to have the sides attached by bolts running down through the wood instead of the strap bolts. While this method improves the appearance of the body it weakens the sides. We are prepared to furnish this method of construction, however, at an extra cost of.....**75¢**

These bodies may be made any desired size; 34x7 ft. and 36x8 ft. being the most popular. We are prepared to get out any desired size on 48 hours' notice. The prices which we give below are for bodies 8 feet long or less. For bodies 9 feet and 10 feet long we make an extra charge of.....**$2.00**

No. 20 SPRING WAGON BODY.

This body, made as per the description given above, is intended for use with a leather dash, and the seat therefore is set on low risers.

No. 20—A. Body includes one seat, and risers, but no dash, no irons and no paint; price.....**$7.00**

No. 20—B. Body includes one seat, with risers, with leather dash 11-in. high; body ironed with iron along the top edge; all seat irons attached, dash feet attached; end gate irons attached; without paint, without steps or rub irons; price **$11.00**

No. 22 SPRING WAGON BODY.

This body, built as per the above description, is intended for use with a toe board, and the seat is therefore set on high risers.

No. **22—A.** Body includes one seat and risers, and toe board, but no irons and no paint; price.....**$7.50**

No. **22—B.** Body includes one seat with high risers and toe board, ironed complete; body ironed along top edge; all seat irons attached; end gate irons attached; without paint; without steps or rub irons; price.....**$10.00**

STEEL TANKS.

GENERAL DESCRIPTION OF OUR STEEL TANKS.

These tanks are regularly made of No. 20 galvanized steel. We claim that they are fully equal, if not superior, to any tank on the market, regardless of price. In finishing around the top, 1-in. angle steel or heavier is used. Where two sheets of steel overlap, as for instance where the bottom and the sides meet, the steel is lapped between two pieces of iron 1x$\frac{3}{16}$, or heavier, and carefully riveted, with strong rivets three inches apart. We believe that this makes the strongest and best tank. We guarantee them not to leak or burst by freezing. In order to prevent any possible chance for a leak, they are well soldered where the sides join. We can use No. 18 or No. 16 metal in the construction of these tanks if so desired. Price on application. We think, however, that No. 20 makes the most satisfactory weight of metal to use.

ROUND STOCK WATERING AND STORAGE TANKS.

No.	Diam. Feet	Height Feet	Capacity Gallons	
1	3	2	91	**$4.05**
2	4	2	166	**4.95**
3	4	2½	215	**5.65**
4	4	3	254	**6.30**
5	4	4	338	**7.40**
6	4	5	423	**8.55**
7	4	6	508	**9.90**
8	4	8	688	**12.60**
9	5	2	262	**6.55**
10	5	2½	342	**7.20**
11	5	3	411	**7.85**
12	5	4	548	**9.45**
13	5	5	675	**11.50**
14	5	6	810	**13.05**
15	5	8	1096	**16.20**
17	6	2	384	**8.30**
18	6	2½	480	**9.00**
19	6	3	583	**9.70**
20	6	4	768	**11.70**
21	6	5	966	**13.50**

SQUARE END STOCK WATERING AND RESERVOIR TANKS.

No.	Width Feet	Height Feet	Lg'th Feet	Capac. Gallons	
201	2	2	4	101	**$4.30**
202	2	2	5	126	**4.85**
203	2	2	6	152	**5.30**
205	2	2	8	202	**7.20**
208	2½	2	8	262	**7.90**
211	3	2	8	318	**8.45**
212	3	2	10	397	**9.90**
216	4	2	8	424	**10.35**
217	4	2	10	530	**11.25**

ROUND END STOCK WATERING AND RESERVOIR TANKS.

No.	Width Feet	Height Feet	Lg'th Feet	Capac. Gallons	
101	2	2	4	91	**$4.05**
102	2	2	5	117	**4.75**
103	2	2	6	144	**5.20**
104	2	2	7	170	**5.85**
105	2	2	8	197	**6.40**
106	2	2	10	250	**8.10**
107	2	2½	8	246	**6.75**
L	2½	2	5	145	**5.40**
M	2½	2	6	178	**5.85**
N	3	2	6	213	**6.75**
108	2½	2	8	245	**7.20**
109	2½	2	10	312	**8.55**
111	3	2	8	295	**7.65**
112	3	2	10	384	**8.80**
116	4	2	8	386	**8.35**
117	4	2	10	496	**10.35**
118	4	2	12	606	**13.05**
120	4	2	16	826	**16.85**
127	5	2	16	1072	**18.00**
129	6	2	8	550	**12.40**
130	6	2	10	813	**13.70**
131	6	2	16	1218	**20.25**

SARVEN PATENT WHEELS.

For price list of wheels without tire, see page 69.
For price list of wheels, tired with steel tire, see page 70.
For price list of rubber tire, see pages 72 to 76.

We fully guarantee every wheel we sell (except XX Grade) to give perfect satisfaction. We do not mark up grades, nor do we sell any "Special" grades. Our wheels are the best that money can buy.

We give on page 69, a list of those sizes, grades and heights of wheels which we carry in stock, ready for instant shipment. In some cases a customer cannot select just what he wants from this large stock, as the particular job for which the wheels are ordered may take a different length of hub, or height of wheel, etc. We make such wheels to order, and it requires about ten days to fill the order. We must make a small charge to cover the expense of getting out such orders, and therefore, on all odd orders we make an extra charge of.....**50¢**

PRIMING WHEELS.

For putting on a prime coat of lead and oil, or a coat of oil only, we charge extra per set.....**50¢**

PAINTING WHEELS.

To order wheels painted, delays an order about five days. We can furnish first-class work in this line, giving any desired color, and any style of striping. Net charge per set for painting and striping.....**$3.00**

RIVETS IN RIMS.

We will put rivets through the rims of wheels, on each side of every spoke at a net extra charge of.....**75¢**

We do not advise the use of rivets in smaller wheels than 1¼ tread.

SCREWS IN RIMS.

Some customers insist on having screws in the rims of wheels, on each side of every spoke. This is a good thing on poor cheap wheels, but we consider it wholly unnecessary on wheels we sell. We will, however, accept orders for wheels with screws in rims, allowing about ten days extra for filling the order, and making a net extra charge of.....**$1.00**

WARNER PATENT WHEELS. BROWN SHELL BAND WHEELS. COMPRESSED BAND WOOD-HUB WHEELS.

The above named three styles of wheels are sometimes required to fill special orders. The Warner wheels are used extensively in the eastern states. Compressed band hub wheels are a favorite with some trade on account of the spoke being "staggered." We will accept orders for any of these three styles in any size or grade, and can fill such orders in about ten days. We make a net charge per set, over the price list of Sarven wheels of.....**$1.50**

PRICE LIST OF SARVEN PATENT WHEELS.

WITHOUT TIRE AND WITHOUT PAINT.

Be sure to give height. Common or standard height is 40 and 44 inches.

Net Price Per Set of Four Wheels.

SPECIAL XX GRADE.

All right for repair work, and well worth the money, but not guaranteed. This is a standard "repair" grade for buggies.

Width Rim	Size Spoke	Length Hub	Heights Carried in Stock	Price Per set
⅞	1 1/16	6½	38-40-42 & 44-in.	**$5.00**
1	1⅛	6½	38-40-42 & 44-in.	**5.30**

D GRADE.

Our D wheels are made of selected sound and perfect forest hickory, and are fully equal to the C grade put up in some factories. This wheel is used extensively for new work as well as for repair work.

Width Rim	Size Spoke	Length Hub	Heights Carried in Stock	Price Per set
¾	1 in.	6½	36-38-40-42-44-46 & 48-in.	**$5.65**
⅞	1 1/16	6½	36-38-40-42-44-46 & 48-in.	**5.75**
1	1⅛	6½	34-36-38-40-42-44-46 & 48-in.	**6.05**
1⅛	1¼	7	34-36-38-40-42-44-46 & 48-in.	**7.25**
1¼	1⅜	7	34-36-38-40-42-44-46 & 48-in.	**8.90**

C GRADE

Our C wheels are made of white hickory, selected forest grade. This grade is the one generally used by good buggy factories for their best work.

C grade wheels taken from our stock will please almost any customer.

Width Rim	Size Spoke	Length Hub	Heights Carried in Stock	Price Per set
¾	1-in.	6½	36-38-40-42-44-46 & 48-in.	**$6.90**
⅞	1 1/16	6½	34-36-38-40-42-44-46 & 48-in.	**7.00**
1	1⅛	6½	34-36-38-40-42-44-46 & 48-in.	**7.30**
1⅛	1¼	7	34-36-38-40-42-44-46 & 48-in.	**8.70**
1¼	1⅜	7	34-36-38-40-42-44-46 & 48-in.	**10.50**
1⅜	1 7/16	7½	34-36-38-40-42-44 & 46-in.	**14.95**
1½	1½	8	34-36-38-40-42-44-46 & 48-in.	**16.25**

B GRADE.

Our B grade wheels are made of second growth hickory, and we guarantee them to stand any test, alongside of any other make of wheels on the market.

Width Rim	Size Spoke	Length Hub	Heights Carried in Stock	Price Per set
¾	1-in.	6½	36-38-40-42-44-46 & 48-in.	**$8.40**
⅞	1 1/16	6½	34-36-38-40-42-44-46 & 48-in.	**8.50**
1	1⅛	6½	34-36-38-40-42-44-46 & 48-in.	**8.85**
1⅛	1¼	7	34-36-38-40-42-44-46 & 48-in.	**10.40**
1¼	1⅜	7	34-36-38-40-42-44-46 & 48-in.	**12.20**

A GRADE.

The demand for genuine A grade wheels has greatly decreased on account of the advance in price, and also because it has been proved that our B grade will give exactly as much service, as wheels made of the all white second growth stock. A few customers still insist on buying the genuine A wheels at a price of from $2.00 to $3.00 per set more than the B grade. In such cases, we quote prices on application, and accept the order subject to ten days' delay, to enable us to get the wheels from the wheel factory.

SARVEN WHEELS TIRED WITH STEEL TIRE.

Work done by hand in our own shops by skilled workmen. Every tire heated all around in the good old way. Unless otherwise ordered, all wheels bolted between every other spoke. See note at bottom of page.

These Prices Are for Sets of Four Wheels.

Look at List of Heights Carried in Stock (page 69), Before Ordering Wheels.

SPECIAL XX GRADE.

Width of Rim.	Thickness Tire.	Size of Spoke.	Length of Hub.	Price per Set.
7/8	3/16	1 1/16	6 1/2	$6.65
7/8	1/4	1 1/16	6 1/2	6.80
1	3/16	1 1/8	6 1/2	7.00
1	1/4	1 1/8	6 1/2	7.20

D GRADE.

Width of Rim.	Thickness Tire.	Size of Spoke.	Length of Hub.	Price per Set.
3/4	3/16	1 in.	6 1/2	$ 7.25
3/4	1/4	1 in.	6 1/2	7.40
7/8	3/16	1 1/16	6 1/2	7.40
7/8	1/4	1 1/16	6 1/2	7.60
7/8	5/16	1 1/16	6 1/2	7.80
1	3/16	1 1/8	6 1/2	7.75
1	1/4	1 1/8	6 1/2	7.95
1	5/16	1 1/8	6 1/2	8.20
1 1/8	1/4	1 1/4	7	9.30
1 1/8	5/16	1 1/4	7	9.50
1 1/8	3/8	1 1/4	7	9.80
1 1/4	1/4	1 3/8	7	11.20
1 1/4	5/16	1 3/8	7	11.50
1 1/4	3/8	1 3/8	7	11.80

C GRADE.

Width of Rim.	Thickness Tire.	Size of Spoke.	Length of Hub.	Price per Set.
3/4	3/16	1 in.	6 1/2	$ 8.50
3/4	1/4	1 in.	6 1/2	8.65
7/8	3/16	1 1/16	6 1/2	8.65
7/8	1/4	1 1/16	6 1/2	8.85
7/8	5/16	1 1/16	6 1/2	9.10
1	3/16	1 1/8	6 1/2	9.00
1	1/4	1 1/8	6 1/2	9.20
1	5/16	1 1/8	6 1/2	9.15
1 1/8	1/4	1 1/4	7	10.75
1 1/8	5/16	1 1/4	7	10.95
1 1/8	3/8	1 1/4	7	11.25
1 1/4	5/16	1 3/8	7	13.00
1 1/4	3/8	1 3/8	7	13.20
1 1/4	1/2	1 3/8	7	13.90
1 3/8	3/8	1 7/16	7 1/2	18.25
1 3/8	1/2	1 7/16	7 1/2	18.90
1 1/2	3/8	1 1/2	8	20.00
1 1/2	1/2	1 1/2	8	20.70

B GRADE.

Width of Rim.	Thickness Tire.	Size of Spoke.	Length of Hub.	Price per Set.
3/4	3/16	1 in.	6 1/2	$10.00
3/4	1/4	1 in.	6 1/2	10.15
7/8	3/16	1 1/16	6 1/2	10.15
7/8	1/4	1 1/16	6 1/2	10.35
7/8	5/16	1 1/16	6 1/2	10.55
1	1/4	1 1/8	6 1/2	10.75
1	5/16	1 1/8	6 1/2	11.00
1 1/8	3/16	1 1/4	7	12.65
1 1/8	3/8	1 1/4	7	12.95
1 1/4	5/16	1 3/8	7	14.80
1 1/4	3/8	1 3/8	7	15.10
1 1/4	1/2	1 3/8	7	15.70

A GRADE.

We can accept orders for the genuine A grade wheels, made of all white second growth hickory, subject to ten days' delay. This enables us to get them from the wheel factory as the demand is so limited that we do not carry them in stock. The price ranges from $2.00 to $3.00 per set more than our B grade.

SETTING BOXING.

If old boxing are sent to us charges prepaid, we will set them in wheels for **25** cents per set of four boxing.

If new axles or gears are purchased of us we will set the boxing off of same in wheels for **25** cents per set of four in wheels 1¼ and smaller. For setting boxing in 1⅜ and 1½ wheels our charge is **50** cents per set.

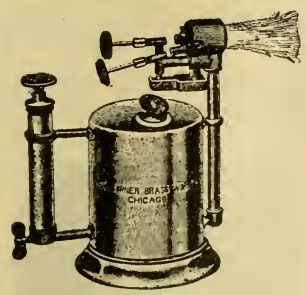
BOLTING WHEELS.

¾, ⅞ and 1-in. wheels will be bolted between every spoke, IF SO ORDERED, extra charge per set.....**10¢**

1⅛, 1¼ and 1½-in. wheels will be bolted between every spoke, IF SO ORDERED, extra charge per set.....**25¢**

SUPPLIES FOR RUBBER TIRE SHOPS.

Steel Channel Tire, page 129. Rubber Tire Applying Machine, page 77.



No. 92 TURNER DOUBLE JET BRAZING TORCH.

This torch is the one adopted by nearly all rubber tire men, as being especially adapted for brazing rubber tire wire. Directions for operating, accompany each one. Price each..**$5.00**

RUBBER TIRE WIRE.

Standard grade of high carbon wire, bright finish, manufactured only for the rubber tire trade. We carry in stock only 15 foot lengths as the waste is a small item, and the convenience of having all long wire to work with is very great. In lots of over three sets, we will sell it by the pound. For less quantities, we bill it by the set, the selling price being based on the same price per pound.

No. **11**—Wire, suitable for standard solid tire, ¾, ⅞ and 1-in. Price per pound..... **4¢**
In sets of eight pieces, per set....**25¢**
No. **9**—Wire, suitable for 1⅛, 1¼, 1⅜ and 1½ solid tire, also for all sizes of round cushion tire, 1-in., 1⅛ and 1¼. Price per pound.... **4¢**
In sets of eight pieces, per set.....**40¢**
In sets of four pieces, per set.....**20¢**

BRAZING SLEEVES.

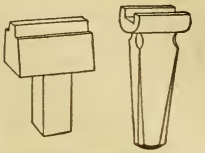
A brass lined sleeve for joining the ends of rubber tire wire, before brazing. Per 100 pieces.....**80¢**

BRASS FILINGS, OR SPELTER.

For use in brazing ends of wire, in bulk, per pound..... 30c

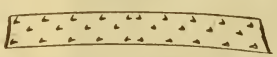
BRAZING WIRE, IN COILS.

Preferred by many to the brass filings, per coil of one-half lb....**25¢**



CHANNEL TIRE SWAGES.

No. **1**—For ¾ channel tire.....**$1.80**
No. **2**—For ⅞ channel tire.....**$2.00**
No. **3**—For 1-in. channel tire....**$2.00**
No. **4**—For 1⅛ channel tire.....**$2.20**
No. **5**—Correct size for cushion channel tire, made for 1-in. round rubber and having ⅞ base, per pair **$2.50**
No. **6**—Correct size for cushion channel tire, made for 1⅛ round rubber and having ⅞ base, per pair **$2.50**
No. **7**—Correct size for cushion channel tire, made for 1¼ round rubber and having ⅞ base, per pair **$2.50**



BULLDOG JOINT CLOSERS.

A flat band, with sharp teeth projecting toward the center from each side. When placed in the channel, under the rubber tire, these teeth catch into the tire, and prevent the rubber from jumping apart.

Price per set of four pieces.....**10¢**

RUBBER CEMENT.

This is a special preparation of rubber in solution, to be used in closing the ends of rubber tire, when bringing them together.

Sold only in half pint cans, each.....20c

SLIPPERY PASTE.

Makes the tire slip around in the channel easily when drawing the ends together, and is guaranteed not to injure the rubber.

Sold in ½ gal. cans only, per can..**50¢**

WHITE'S BRAZING COMPOUND.

A white powder to use as a flux, in brazing. Price per package....**25¢**

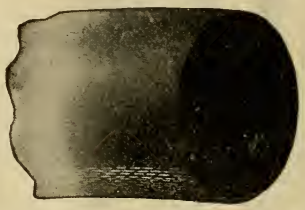
GOODYEAR "PILGRIM" BRAND RUBBER TIRE.

MANUFACTURED FOR US BY THE GOODYEAR TIRE & RUBBER CO., AKRON, O.

This is a safe, low-priced, popular brand of rubber tire, put up especially for country trade, and under the ordinary conditions of carriage usage, it is fully guaranteed for one year's service.

Where conditions are such as to call for extraordinary tire, such as livery work, city work on brick pavements, etc., we refer customers to the Goodyear "Wing" tire advertised on another page.

Solid Tire.

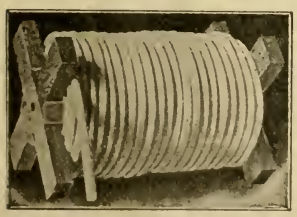


Round Cushion Tire.

"Pilgrim" rubber tire, either solid or cushion, cut lengths, per lb.....**38c**
"Pilgrim" rubber tire, either solid or cushion, full reels, per lb.....**34c**

Above Prices Are Net, No Discount.

ESTIMATES OF "PILGRIM" RUBBER TIRE ON 250-FOOT REELS.



Regular Solid Tire.

Size of Tire	Estimated weight of 250 feet	Price per pound	Estimated net price 250 ft. reel
¾	75 lbs.	34c	$25.50
⅞	90 lbs.	34c	30.60
1-in.	110 lbs.	34c	37.40

Round Cushion Rubber Tire.

1-in.	127 lbs.	34c	$43.18
1⅛	162 lbs.	34c	55.08

"PILGRIM" RUBBER TIRE, SOLD BY THE POUND, CUT TO LENGTH.

On opposite page we give the estimated net cost per set for tires cut to length, for different heights of wheels.
These prices are estimated on a price per pound of..... **38c**

"PILGRIM" RUBBER TIRE — ESTIMATED WEIGHT OF 100 FEET OF TIRE.

¾-inch solid tire.....30 lbs.
⅞-inch solid tire.....36 lbs.
1 -inch solid tire.....44 lbs.
1 -inch round cushion tire.....51 lbs.
1⅛-inch round cushion tire.....65 lbs.

RE-RUBBERING WHEELS WITH "PILGRIM" RUBBER TIRE.

Wheels sent to us for this purpose, should have freight charges prepaid, and the bill of lading sent to us with the order. Mark name and address on wheels. Prices for this work are plainly given on this page.

NEW CHANNEL TIRE AND "PILGRIM" RUBBER TIRE APPLIED.

Prices are plainly given on this work on opposite page. For new wheels, find the price of naked wheels, page 69, and then add for new channels and rubber tire, according to the price list.

"PILGRIM" BRAND RUBBER TIRE.

TABLE OF LENGTHS.

For rubber cut to length, to fit given heights of wheel, we use the following table, which we recommend to our customers as a good one to follow:

Height of Wheel.	Length of Tire.	Height of Wheel.	Length of Tire.
32 inches	9 ft. 3 inches	42 inches	11 ft. 9 inches
34 inches	9 ft. 9 inches	44 inches	12 ft. 3 inches
36 inches	10 ft. 3 inches	46 inches	12 ft. 9 inches
38 inches	10 ft. 9 inches	48 inches	13 ft. 3 inches
40 inches	11 ft. 3 inches		

Following Prices Are All for a Full Set of Four Wheels.

PRICE LIST OF "PILGRIM" SOLID TIRE.

Size of Wheels	Height of Wheels	Rubber tire only, cut the correct length	Re-rubbering old Wheels	New channel tire and rubber applied
¾	36 and 40	$4.90	$6.65	$ 8.90
¾	38 and 42	5.15	6.90	9.15
¾	40 and 44	5.35	7.10	9.35
¾	42 and 46	5.60	7.35	9.60
⅞	36 and 40	5.90	7.65	9.90
⅞	38 and 42	6.15	7.90	10.15
⅞	40 and 44	6.45	8.20	10.45
⅞	42 and 46	6.70	8.45	10.70
1-in.	36 and 40	7.20	8.95	11.45
1-in.	38 and 42	7.50	9.25	11.75
1-in.	40 and 44	7.85	9.60	12.10
1-in.	42 and 46	8.20	9.95	12.45

PRICE LIST OF ROUND CUSHION TIRE.

Diam. of Rubber	Height of Wheels	Rubber tire only, cut the correct length	Re-rubbering old Wheels	New channel tire and rubber applied
1-in.	32 and 34	$ 7.35	$ 9.10	$11 85
1-in.	34 and 36	7.70	9.45	12.20
1-in.	36 and 38	8.10	9.85	12.60
1-in.	36 and 40	8.30	10.10	12.80
1-in.	38 and 42	8.70	10.45	13.20
1-in.	40 and 44	9.10	10.85	13.60
1⅛	32 and 34	9.40	11.15	14.15
1⅛	34 and 36	9.90	11.65	14.65
1⅛	36 and 38	10.35	12.10	15.10
1⅛	36 and 40	10.60	12.35	15.35
1⅛	38 and 42	11.10	12.85	15.85
1⅛	40 and 44	11.60	13.35	16.35

NOTICE.

The channel tire which is made for round cushion rubber, measures ⅞-inch at the base. Therefore it will only fit wheels having ⅞-inch rims. In other words, cushion tire cannot be applied to any other wheels than those on which the rims measure ⅞-inch wide.

This is a very important point, which should be observed when figuring on applying cushion tire to wheels.

GOODYEAR "WING" BRAND RUBBER TIRE.

MANUFACTURED FOR US BY THE GOODYEAR TIRE & RUBBER CO., AKRON, O.

Fully Guaranteed for One Year's Service.

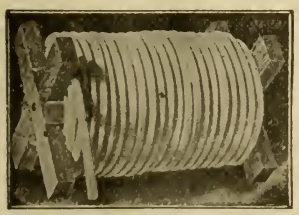
The Goodyear "Wing" rubber is the highest quality of carriage rubber manufactured by this well known company.

Our customers should select this brand, where conditions call for extra good tires, such as livery trade, contractors' wagons, and city work on brick pavements.

Goodyear "Wing" Tire, in cut lengths, per pound 42c
Goodyear "Wing" Tire, in full reels (250 feet), per pound..... 38c

Above Are Net Prices, No Discount.

It gives us pleasure to announce to our customers the addition to our line of this extra high quality tire. We will carry it in stock on reels of 250 feet, from which we will cut any desired length, or will apply it to old wheels if desired. We carry three sizes, ¾-inch, ⅞-inch, and 1-inch. We will fill orders for larger sizes up to 1¾-inch, shipping from the manufacturer's stock in Chicago, at the above prices.



ESTIMATES OF GOODYEAR "WING" RUBBER ON 250-FOOT REELS.

Size of Tire.	Estimated weight of 250 feet.	Price per pound.	Estimated net price 250-ft. reel.
¾	75 lbs.	38c	$28.50
⅞	90 lbs.	38c	34.20
1-in.	110 lbs.	38c	41.80

Above Are Net Prices, No Discount.

GOODYEAR "WING" TIRE, SOLD BY THE POUND, CUT TO LENGTH.

On the opposite page, we give the estimated net cost per set for tires cut to length, for different heights of wheels. These prices are estimated on a price per pound of 42c

GOODYEAR "WING" TIRE — ESTIMATED WEIGHT OF 100 FEET OF TIRE.

¾ inch.....30 lbs. ⅞ inch.....36 lbs. 1-in. .....44 lbs.
When figuring on buying 100 feet of tire, figure a price per pound of... 42c

RE-RUBBERING WHEELS WITH GOODYEAR "WING" TIRE.

Wheels sent to us for this purpose, should have freight charges prepaid, and the bill of lading sent to us with the order. Mark name and address on wheels. Prices for this work are plainly given on this page.

NEW CHANNEL TIRE AND GOODYEAR "WING" RUBBER TIRE APPLIED.

Prices are plainly given on this work on opposite page. For new wheels, find the price of naked wheels, page 69, and then add for new channels and rubber tire, according to the price list.

GOODYEAR "WING" RUBBER TIRE.

TABLE OF LENGTHS.

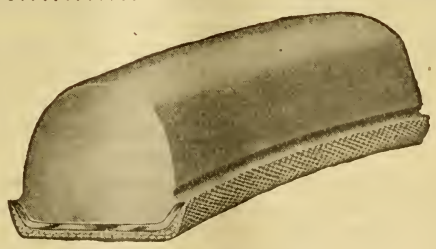
For rubber cut to length, to fit given heights of wheel, we use the following table, which we recommend to our customers as a good one to follow:

Height of Wheel.	Length of Tire.	Height of Wheel.	Length of Tire.
32 inches	9 ft. 3 inches	42 inches	11 ft. 9 inches
34 inches	9 ft. 9 inches	44 inches	12 ft. 3 inches
36 inches	10 ft. 3 inches	46 inches	12 ft. 9 inches
38 inches	10 ft. 9 inches	48 inches	13 ft. 3 inches
40 inches	11 ft. 3 inches		

Following Prices Are All for a Full Set of Four Wheels.

PRICE LIST OF REGULAR GOODYEAR "WING" TIRE.

Size of Wheels	Height of Wheels	Rubber tire only, cut the correct length	Re-rubbering old Wheels	New channel tire and rubber applied
¾	36 and 40	$5.40	$ 7.15	$ 9.40
¾	38 and 42	5.70	7.45	9.70
¾	40 and 44	5.90	7.65	9.90
¾	42 and 46	6.15	7.90	10.15
⅞	36 and 40	6.50	8.25	10.50
⅞	38 and 42	6.80	8.55	10.80
⅞	40 and 44	7.10	8.85	11.10
⅞	42 and 46	7.40	9.15	11.40
1-in.	36 and 40	7.95	9.70	12.20
1-in.	38 and 42	8.30	10.05	12.55
1-in.	40 and 44	8.70	10.45	12.95
1-in.	42 and 46	9.05	10.80	13.30



SIDE-WIRE TIRE.

For hacks, and heavy carriages, especially in city work, it is customary to put on rubber tires with wires on the outside of the tire. It requires a special side-wire machine for this work. These tires usually run in the heavy sizes only, from 1⅜ up to 1¾. We do not carry them in stock, but have made arrangements to supply our customers by shipping from the manufacturer's stock in Chicago.

In ordering, be sure to give us the correct size and length of tire wanted. Do not measure the rubber itself, nor the channel. The proper place to measure is to get the width of the wood rims, under the steel channel tire. If the width of the rim is 1½-in., for instance, then the correct size of tire to use is 1½-in. This is a very important point.

All side-wire tire is made with a special, extra quality composition of rubber, and in only one grade. Per pound..... 40¢

AXLE BEDS, HEAD BLOCKS, REACHES, ETC.

AXLE BEDS.

No order can be filled correctly unless every question is answered.

1.—What is the general style of gear for which the axle will be used?
2.—Is the axle bed ordered, for use on the front or rear axle?
3.—What is the size of axle, measuring on the square, just back of collar?
4.—Is the axle fantail (broader in the middle), or square bed?
5.—Is the axle arched, or dropped, and how much?
6.—Is it wide track, or narrow track?
7.—If used for front axle, what style of fifth wheel will be used, and what size?
8.—If this question cannot be answered correctly, state whether the bed is finished with circle spots, or with a long flat place for the wheel to rest on, and in that case, give length and thickness of the flat place.
9.—If used for rear axle of a common elliptic gear with spring in center, give the width of steel in the spring.
10.—If used for rear axle with two springs, one at each end, give distance apart and size of springs, so that we can spot it correctly for the springs.

Our stock sizes include nothing but buggy axle beds, fitting ⅞, $1\frac{1}{16}$ or 1-in. fantail axles, made for 12-in. Brewster circle, or No. 947-C fifth wheel, and rear beds made for 1¼ springs. Arch and drop is as follows: Front arch ½-in. Front drop 1½-in. Rear arch 1-in. Rear drop 1-in. For any axle bed selected from this stock we charge ..... **$ .50**

Other sizes and styles will be made to order promptly. Price..... **1.00**

HEAD BLOCKS.

We carry in stock several different styles of head blocks to fit almost any kind of gear irons on the market. In ordering tell us the style of gear and kind of gear iron used, also the size of spring to be used.

Head blocks for buggy gears, any desired style, to fit 1¼ springs, each..... **25¢**

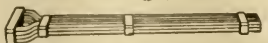
Head blocks for spring wagon gears, to fit any desired style of gear iron, and 1½ springs, price each..... **35¢**

SPRING BARS.

We carry in stock the following lengths of spring bars, made to fit regular 1¼ springs. Measurements are taken from center to center of holes. 16-in., 18-in., 20-in., 22-in., 24-in. Price each..... **25¢**

We carry in stock the following lengths of spring bars made to fit 1½ springs, heavy for spring wagon work. Measurements taken from center to center of holes, 29-in., 31-in. and 33-in. Price each..... **35¢**

We frequently make to order special spring bars, odd sizes not found in the above list. For all such bars we charge, each..... **50¢**



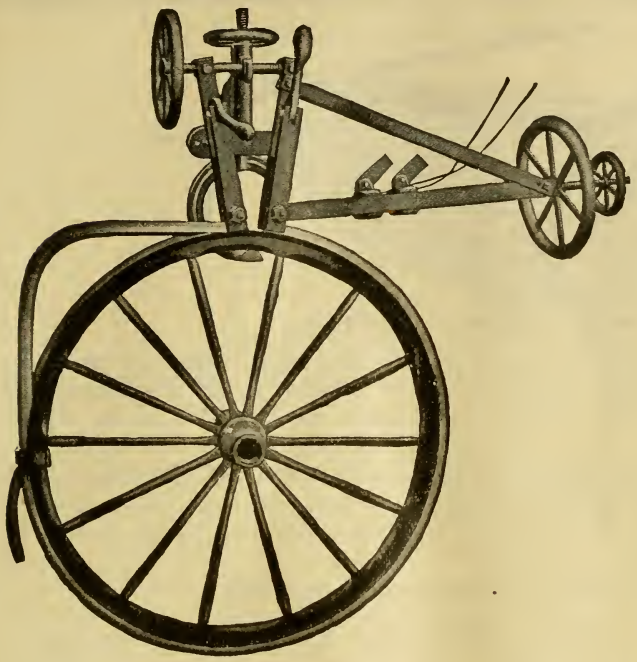
BREWSTER BENT REACHES.

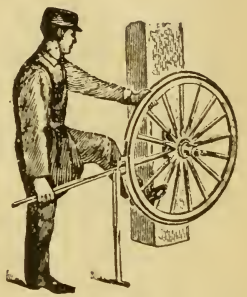
We carry in stock the regular buggy size only. Price each..... **25¢**

STRAIGHT REACHES.

We carry in stock the following sizes of good straight hickory reaches.

No. 111— $1\frac{3}{16}$x ⅞x6 ft., price each..... **20¢**
No. 113—$1\frac{3}{16}$x$1\frac{5}{16}$x9 ft., price each..... **25¢**
No. 115—$1\frac{5}{16}$x$1\frac{5}{16}$x9 ft., price each..... **40¢**
No. 117—$1\frac{5}{16}$x$1\frac{13}{16}$x9 ft., price each..... **60¢**





THE GOSHEN RUBBER TIRING OUTFIT.

We consider this the most satisfactory outfit on the market for all around work, as it will apply tires from ¾ to 1½, in the best manner and shortest time. It is much stronger and heavier than any other machine on the market, and occupies but little space. This machine is so arranged that either wire can be tightened independently of the other, a feature not found in most machines, and this saves time, and enables the operator to do a better job. Any one who has much rubber tire work to do, will find that it saves its cost in a very short time. We carry them in stock, ready for instant shipment. The outfit is complete with full instructions for setting up and operating, and also includes enough brazing compound, sleeves, asbestos, etc., to last a long time. It also includes a separate machine for bringing together the rubber, after the brazing is done, as shown in the small cut above. The price does not include a brazing torch, for the reason that many purchasers have a brazing torch. We advertise the best one ever manufactured on page 71.

For steel channel tire see page 129. For swages for welding channel tire, see page 71. With this outfit, and a stock of our rubber tire, a purchaser can begin rubber tire operation at once.

Outfit complete, with separate Joint Closer, without Brazing Torch..... **$26.65**
Net cash. No discount.

SHAFTS IRONED COMPLETE.

The full line of ironed shafts, which we advertise on this page, are all standard goods, well made, well ironed, and carried in stock at all times ready for instant shipment. All of our regular stock shafts measure 44-in. from outside to outside of eye.

We can make to order promptly other sizes and styles of shafts than these which we carry in stock, making a small extra charge to cover the additional cost of making only a few at a time, to order, and also such extras as may be ordered by our customer.

EITHER HOOKS OR FLAT END SINGLETREES.

No. **80**—XX grade, regular shafts, ironed in the white, not trimmed, per pair **$1.65**

No. **84**—XXX grade, special buggy shafts, with heels two inches higher than regular and a higher bend, ironed in the white, not trimmed, per pair.... **$2.05**

No. **86**—XX grade, regular buggy shafts, ironed, fully trimmed and painted carmine red **$2.30**

No. **88**—XX grade, regular buggy shafts, ironed, fully trimmed and painted black, per pair..... **$2.30**

No. **90**—XXX grade, medium shafts, ironed in the white, size 1½x2, for surreys or light spring wagons, long easy bend heel, price per pair..... **$2.45**

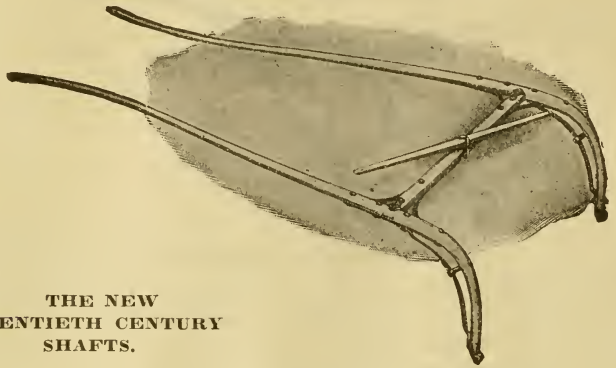
No. **92**—XXX grade, heavy shafts, size 1½x2¼, ironed in the white, with long easy bend heel. Will fit surreys and spring wagons. Price per pair.... **$2.80**

No. **94**—XXX grade, medium shafts, size 1½x2, ironed in the white, with double bend heels. For surreys and light spring wagons on which the body projects far out. Price per pair..... **$2.95**

No. **96**—XXX grade, heavy shafts, size 1½x2¼, ironed in the white with double bend heels. Made for heavy spring wagons on which the body projects far out. Price per pair..... **$3.30**

In offering our customers the above line of "Pioneer Brand" shafts we are giving them a strictly standard grade shaft as the manufacturers of these shafts are not only the largest manufacturers of this line of goods in the country but their shafts and poles are taken as a standard for quality and in buying them our customers can be sure of getting a standard article not only in quality but in size and general make-up.

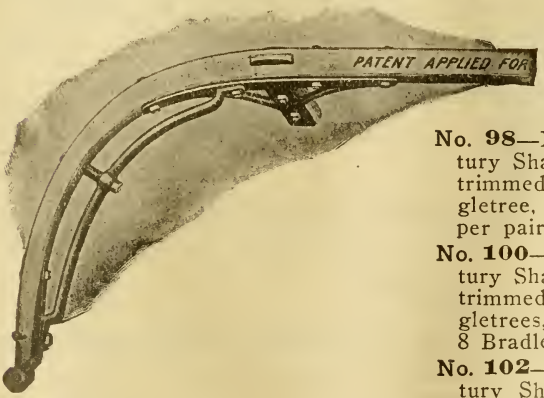
POLES IRONED COMPLETE.



THE NEW TWENTIETH CENTURY SHAFTS.

A remarkable improvement has been made in the construction of the Twentieth Century shafts over all other styles. This improvement consists of a heel brace and a corner brace, combining many new features in their construction. The corner where the cross bar and shaft join is ironed with a steel plate on top, covering up the joint, and on the under side with pressed steel plate and corner braces combined, which cannot be broken under the same conditions where malleable iron or wrought iron would break.

The heel brace follows the curve of the shaft, giving a much better appearance than the common heel brace, and besides it is locked into both the Tee Plate and the Shaft Eyes, making it perfectly secure even if the nuts should come off of the bolts. All of these shafts have 2 in. higher bend than a common buggy shaft. All stock shafts measure 44 in. from outside to outside of eye.



This cut shows the construction of all shafts listed on this page.

No. 98—XXX grade, Twentieth Century Shafts, ironed in the white, not trimmed, with hooks on end of singletree, with common shaft eyes, per pair **$2.15**

No. 100—XXX grade, Twentieth Century Shafts, ironed in the white, not trimmed, with hooks on end of singletrees, with Bradley eyes, to fit No. 8 Bradley couplings, per pair..... **$2.40**

No. 102—XXX grade, Twentieth Century Shafts, painted black, trimmed with regular leathers and straps, (points 24 in. long), with hooks on ends of singletrees, regular shaft eyes, per pair..... **$2.85**

POLES IRONED COMPLETE.

The full line of ironed poles which we advertise on this page are all standard goods, well made, well ironed, and carried in stock at all times ready for instant shipment. The price of every pole listed on this page includes doubletrees, singletree, doubletree straps and neck yoke.

They are all double bend poles, and are standard sizes such as will fit any ordinary buggy. They measure 44 inches from outside to outisde of eye, and 9 feet from doubletree bolt to tip of pole.

We can make to order promptly other sizes and styles than these, making a small extra charge to cover the additional cost of making only a few to order, and also such extras as may be ordeded by our customer.

EITHER HOOKS OR FLAT END SINGLETREES.

No. 12—XX grade, regular buggy pole, size 1¾x2¼, ironed in the white, with doubletrees, doubletree straps, singletrees and neck yoke.....**$3.20**

No. 13—XX grade, surrey or spring wagon pole, size 2x2½, ironed in the white, with doubletrees, doubletree straps, singletrees and neck yoke...**$3.30**

No. 14—Second growth, light buggy pole, size 1¾x2¼, extra good quality, ironed in the white, with doubletrees, doubletree straps, neck yoke and singletrees complete **$4.20**

No. 15—XX grade, regular buggy pole, size 1¾x2¼, ironed with doubletrees, doubletree straps, singletrees and neck yoke, completely trimmed and painted carmine red.....**$3.70**

No. 16—XX grade, regular buggy pole, size 1¾x2¼, ironed with doubletrees, doubletree straps, singletrees and neck yoke, completely trimmed and painted black **$3.70**

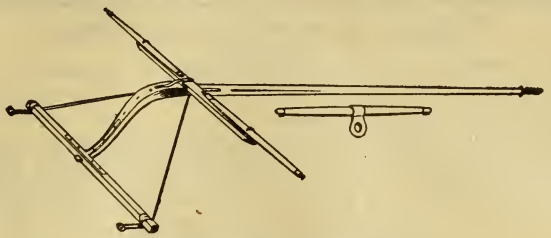
No. 17—XX grade, surrey or spring wagon pole, size 2x2½, ironed, with doubletrees, doubletree straps, singletrees and neck yoke, completely trimmed and painted black.....**$3.80**

BUGGY AND EXPRESS DOUBLETREES AND SINGLETREES IRONED COMPLETE.

We carry in stock two sizes ironed complete, ready for use.

No. 2—Either hooks on singletrees or flat end, suitable size for ordinary buggy poles or light spring wagons, price per set.....**$1.00**

No. 6—With hooks on singletrees, good heavy size, suitable for heavy spring wagon poles, price per set.....**$1.25**



POLES IRONED COMPLETE.

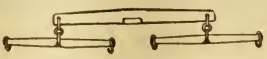
Poles advertised on this page are made especially to meet the demand for a good, strong, spring wagon pole. The weakest point of the ordinary pole lies in the curved circle. To overcome this we substitute a straight cross bar, which is ironed its full length on the bottom to give it additional strength. The braces are made of steel, with an extra heavy piece at the point where the brace fastens to the cross-bar with heavy clips.

This pole is suitable for all classes of spring wagon work, such as jobs where the body extends out over the front spring.

All Singletrees Are Ironed with Common Hooks.

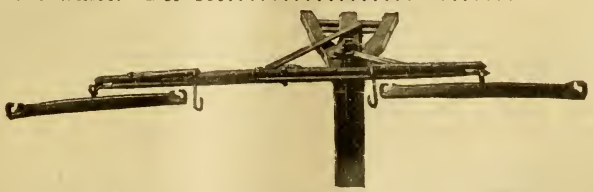
No. **18**—XXX grade, hand made special pole, with straight cross bar instead of curved circle. This pole is suitable for light or medium wagons having 1-in. or 1⅛ axles. Braces are ⅝ round iron. Complete in the white with doubletrees, singletrees and neck yoke. Each.....**$4.50**

No. **19**—XXX grade, hand made special pole for heavy spring wagons, Duplex gears, and similar work. Ironed complete in the white, with extra heavy doubletrees, singletrees and neck yoke, and carries straight cross bar instead of curved circle. Braces ¾ round iron. Each.....**$5.50**



WAGON IMPLEMENT DOUBLETREES AND SINGLETREES IRONED.

No. **1**—These sets consist of our 2x4 hickory doubletree, with plates and clevises, and our No. 82 singletrees, ironed with straps and hooks, regular size 2⅝x36. In the white. Per set.....**$1.50**



THE SMILEY THREE HORSE STEEL EVENER.

No. **2**—The evener is very strong, but light, having but two singletrees. The third horse pulls direct from the end of the short eveners, and it is so arranged that neither horse can shirk. Singletrees have safety hooks and do not drop down when going down grade The hooks are only one inch further from the hammer than a regular two-horse doubletree. The evener is easily attached to any farm wagon tongue, by hooking the draft rod around the bolt that holds the tongue and hounds together, then connecting the other end with the regular wagon hammer. No holes need be bored in tongue, and no pins to wear out or get lost. Price of eveners complete with irons for attaching to wagon tongue.....**$3.35**

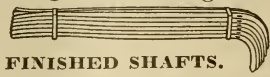
If wanted only for plow work, leaving off wagon attachment..... **2.60**

POLES AND SHAFTS NOT IRONED.

SPECIAL NOTICE OF CHANGE IN GRADE.

What we have been selling under a XX brand is listed below under B Grade, containing a few defects but not many.

What we have been selling under a XXX brand is now listed under XX brand, being good, clear stock, and fully up to the XXX grade which most jobbers offer. This change of grade is very important. Customers who have heretofore bought our XX finished and half finished shafts, should remember that when they order B grade this year they will get the same goods formerly called XX.



FINISHED SHAFTS.

All shafts listed on this page as "Finished Shafts," are mortised, and include the crossbars, but not the single trees.

No. 30—B grade, finished shafts, 1⅜x1⅞, per dozen pairs.....**$10.50**
Less than full bundle (six pairs), per pair..... **.90**
No. 32—B grade, finished shafts, 1½x2, per dozen pairs..... **12.00**
Less than full bundle (six pairs), per pair..... **1.10**
No. 34—XX grade, finished shafts, 1⅜x1⅞, per dozen pairs..... **12.00**
Less than full bundle (six pairs), per pair..... **1.10**
No. 35—XX grade, finished shafts, 1½x2, per dozen pairs..... **13.00**
Less than full bundle (six pairs), per pair..... **1.20**
No. 36—XXX grade, finished shafts, 1⅜x1⅞, per dozen pairs..... **14.00**
Less than full bundle (six pairs), per pair..... **1.30**

SHAFTS THREE-QUARTERS FINISHED.

These shafts are finished except that they are not mortised, and include club end crossbars, but no singletrees. This style of shaft is very popular for repair work, there being no mortise.

No. 40—B grade, three-quarter finished shafts (finished except no mortise), 1⅜x1⅞, per dozen pairs.....**$10.50**
Less than full bundle (six pairs), per pair..... **.90**
No. 41—XX grade, three-quarter finished, 1⅜x1⅞, per dozen pairs..... **12.00**
Less than full bundle (six pairs), per pair..... **1.10**

HALF FINISHED SHAFTS.

These prices do not include either the crossbars or the singletrees.

No. 42—B grade, half finished shafts, 1⅜x1⅞, per dozen pairs.....**$ 9.50**
Less than full bundle (six pairs), per pair..... **.85**
No. 44—B grade, half finished shafts, 1½x2, per dozen pairs..... **10.00**
Less than full bundle (six pairs), per pair..... **.95**
No. 46—XX grade, half finished shafts, 1⅜x1⅞, per dozen pairs..... **11.00**
Less than full bundle (six pairs), per pair..... **1.00**
No. 47—XX grade, half finished shafts, 1½x2, per dozen pairs..... **12.00**
Less than full bundle (six pairs), per pair..... **1.10**
No. 49—XX grade, half finished shafts, 1½x2¼, per dozen pairs..... **15.00**
Less than full bundle (six pairs), per pair..... **1.40**

HEAVY EXPRESS SHAFTS.

No. 50—XX grade, extra heavy express shafts, 1¾x2½, easy bent heel, half finished, without crossbar or singletree, per pair.....**$1.75**

BIKE WAGON SHAFTS.

No. 52—XX grade, half finished shafts, 1⅜x1⅞, with very long high bend heel, without crossbar or singletree, per pair.....**$1.30**

DOUBLE BEND HEEL SHAFTS.

No. 54—XX grade, half finished, double bend heel shafts, 1½x2¼, a size suitable for surreys or spring wagons, without crossbar or singletree, per pair **$2.00**

POLES AND SHAFTS NOT IRONED.
(Continued.)

CART SHAFTS.

No. **56**—XX grade, cart shafts, shaped like an ordinary buggy shaft, except that they are 9 feet long, and measure 1⅝x2¼. Half finished without crossbar or singletree, per pair.....**$2.00**

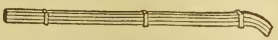
STRAIGHT HEEL SHAFTS.

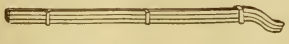
Suitable for platform jobs requiring shafts without any bend at the heel. Half finished, without crossbars or singletrees.

No. **58**—XX grade, straight heel shafts, 1½x2¼, per pair.....**$1.25**
No. **60**—XX grade, straight heel shafts, 2x2½, per pair..... **2.00**

HALF-FINISHED POLE CIRCLES.

No. **84**—XX grade, size 1¼x1¼ at center, price each.....**22¢**
No. **85**—XX grade, size 1⅜x1⅜ at center, price each.....**25¢**
No. **86**—XX grade, size 1½x1½ at center, price each.....**27¢**
No. **88**—XX grade, size 1¾x1¾ at center, price each.....**33¢**





FINISHED POLES NOT IRONED.
Made of the Best Forest Hickory.

These poles are finished with mortice for circle, and the price includes the circle. We list the single bend and double bend at the same price.

Single Bend or Double Bend.

No. **62**—XX grade, finished poles, 1¾x2¼, price each.....**$1.60**
No. **64**—XX grade, finished poles, 2x2½, price each..... **1.60**

When ordering finished poles without circles, deduct 10 cents each net, from the above prices.

HALF-FINISHED POLES.
Made of the Best Forest Hickory.

These poles are finished from the point back to the doubletree and from there on the wood is left square. We strongly recommend them for repair work, as they can easily be fitted to old irons. The price does not include a circle.

Single Bend or Double Bend.

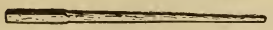
No. **70**—XX grade, half finished poles, 1¾x2¼, each.....**$1.50**
No. **72**—XX grade, half finished poles, 2x2½, each..... **1.50**
No. **74**—XX grade, half-finished poles, 2¼x3, each..... **2.25**

HALF-FINISHED PLATFORM POLES.

These poles are perfectly straight without any bend at all, and are suitable for platform wagons and similar jobs. Price does not include circle, and these poles are finished from the point, back to the doubletree. The butt is left square.

No. **82**—XX grade, half finished platform pole, 2x2½, price each.....**$1.40**

WAGON WOODSTOCK.



FINISHED WAGON TONGUES.

We use the best selected Indiana timber, and finish the tongues only to the butt, which is left square.

As the tongues come from the mill, they are sorted into two piles, **Light Sizes and Heavy Sizes.**

Light Sizes generally measure 3½ square at the doubletree. **Heavy Sizes** generally measure 3¾ square at doubletree.

We sell Oak and Ash tongues at the same price.

Light Size Tongues, taken as they come from the pile, price each..**$1.25**

Heavy Size Tongues, taken as they come from the pile, price each..**$1.25**

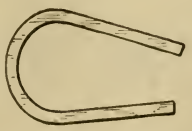
Tongues ordered picked out to some exact size, extra.....10c

Extra Heavy Tongues, measuring full 4-in. square at doubletree, extra 10c

TONGUE HOUNDS.

Select Oak.

Rough, price each..... 11c
Finished, price each..... 13c

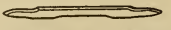


BENT OAK HOUNDS.

Size 2x3, price each.....**90¢**

WAGON STAKES.

Rough, regular size, each.....**4¢**



SAND BOARDS.

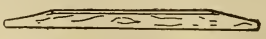
Select Oak, finished.

No. **620**—3-in. wide x 3½-in. deep, narrow track, each.....**45¢**

No. **621**—3-in. wide x 3½-in. deep, wide track, each.....**45¢**

No. **622**—3¼-in. wide x 3¾-in. deep, narrow track, each.....**50¢**

No. **623**—3¼-in. wide x 3¾-in. deep, wide track, each.....**50¢**



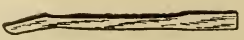
WAGON AXLES.

Finished.

Extra selected Indiana hickory. Not ready to be put into the wagon, but as near as they dare be made for repair work. They have correct pitch and gather, and but little fitting is required.

Be sure to state whether wide or narrow track is wanted.

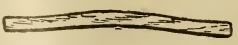
For 2¾-in. skeins, each.....**$0.75**
For 3 -in. skeins, each..... **.90**
For 3¼-in. skeins, each..... **1.00**
For 3½-in. skeins, each..... **1.10**
For 4 -in. skeins, each..... **1.40**



HIND HOUNDS.

Select Oak.

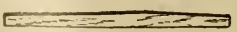
Rough, price each..... 13c
Finished, price each..... 17c



SWAY BARS.

Select Oak.

Surfaced, price each..... 15c



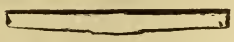
FRONT HOUNDS.

Select Oak.

Surfaced, price each..... 13c

WAGON WOODSTOCK.

(Continued.)



WAGON BOLSTERS.

Select Oak, finished but not mortised nor bored.

No. 630—Front Bolsters, narrow track, 3-in. wide x 4½-in. deep....**50c**

No. 631—Front Bolsters, wide track, 3-in. wide x 4½-in. deep..... **55c**

No. 632—Front Bolsters, narrow track, 3½-in. wide x 4½-in. deep..**55c**

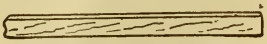
No. 633—Front Bolsters, wide track, 3½-in. wide x 4½-in. deep.....**60c**

No. 636—Hind Bolsters, narrow track, 3-in. wide x 4-in. deep.....**45c**

No. 637—Hind Bolsters, wide track, 3-in. wide x 4-in. deep.....**50c**

No. 638—Hind Bolsters, narrow track, 3-in. wide x 6-in. deep.....**60c**

No. 639—Hind Bolsters, wide track, 3-in. wide x 6-in. deep.....**65c**



WAGON REACHES.

Select Oak. Surfaced on all four sides and edges jointed to insure straightness.

2 -in. x 4 -in. x 10 ft. long, each.**$ .65**

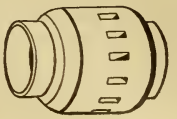
2 -in. x 4 -in. x 12 ft. long, each. **.75**

2¼-in. x 4½-in. x 12 ft. long, each. **1.00**

CROSS BARS FOR SHAFTS.

Good Quality Hickory. Finished, except that ends are not mortised, but are left "club ends." Full length.

No. 650—1⅜x1⅞, full dozen....**$1.80**
Less than full dozen, each..... **.20**
No. 652—1½x2, full dozen..... **1.90**
Less than full dozen, each..... **.20**
No. 654—1½x2¼, full dozen.... **2.10**
Less than full dozen, each..... **.20**
No. 656—2x2½, full dozen..... **2.60**
Less than full dozen, each..... **.25**



WAGON HUBS.

Through a connection which we have formed with a large wagon factory, we are able to carry in stock, a very fine large stock of bone-dry hubs, of the very finest quality. These hubs are strictly first class, and we can only furnish those sizes which are given in the list below. When spokes are ordered with hubs, we can fit the spokes to the hubs according to the sizes given in the list below. We cannot break sets of this line of best grade hubs, but we also carry a second stock, which is more or less broken up in sets and is made up of various styles and patterns. We will fill orders for less than full sets, or odd hubs from this special stock, which is carried only for the convenience of our customers who want odd hubs for repair work. Remember that orders for full sets will be filled from our present new stock of fine bone-dry hubs. **We will not break sets of these regular sizes.**

Front hubs have 12 mortises.

Hind hubs have 14 mortises.

Hubs are cupped, therefore the length should be same as length of the boxing of the skeins which are to be used with the hubs.

Dia.	Length inside.		
6-in.	7-in.	full sets..	**$0.80**
	Less than full sets, each.....		**.35**
7-in.	8-in.	full sets..	**1.00**
	Less than full sets, each.....		**.40**
8-in.	9-in.	full sets..	**1.50**
	Less than full sets, each.....		**.50**
8½-in.	10-in.	full sets..	**1.75**
	Less than full sets, each.....		**.60**
9-in.	11-in.	full sets..	**1.75**
	Less than full sets, each.....		**.60**
9½-in.	12-in.	full sets..	**2.50**
	Less than full sets, each.....		**.75**

DOUBLETREES, SINGLETREES AND NECK YOKES.

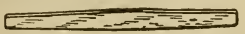
WAGON DOUBLETREES.

Extra Select Hickory, Finished.

No. 50—Size 2x4x48, full doz.... **$3.00**
Less than full doz., each..... **.30**

No. 52—Size 2x4½x48, full doz.. **3.40**
Less than full doz., each..... **.35**

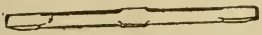
No. 54—Size 2½x5x48, full doz... **5.50**
Less than full doz., each..... **.50**



PLOW DOUBLETREES.

Forest Hickory. Finished.

No. 56—1⅞x3½x42, full doz.... **$1.85**
Less than full doz., each..... **.18**

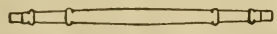


BUGGY AND EXPRESS DOUBLETREES.

First Class Stock. Finished.

No. 58—1½x2½x48, full doz.... **$2.00**
Less than full doz., each..... **.20**

No. 60—1½x3x48, full doz..... **2.40**
Less than full doz., each..... **.25**



WAGON NECK YOKE WOODS.

Mixed Ash and Hickory.

No. 62—2¾x40, full doz..... **$2.60**
Less than full doz., each..... **.25**

No. 64—3x44, full doz..... **3.10**
Less than full doz., each..... **.30**

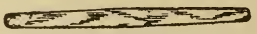
Look over our proposition on Singletrees. We offer clean, strong stock, well selected, well graded, the best goods for the money in any market.

SINGLETREE WOODS.

Sword end. Size 1⅞x42.

No. 14—B grade, mixed forest hickory and second growth ash, price full doz. **$1.40**
Less than full doz., each..... **.14**

No. 15—A grade. All selected Indiana hickory, regular buggy size, price full doz..... **2.00**
Less than full doz., each..... **.18**



WAGON SINGLETREE WOODS.

Oval.

These woods are made and turned out in our own factory, out of first class Indiana hickory. The difficulty of obtaining the class of goods which the trade demands, made it necessary for us to place ourselves in a position to supply ourselves. Give us a trial order.

B Grade.

All Forest Hickory.

No. 22—2½x36 full doz., price.. **$1.15**
Less than full doz., each..... **.10**

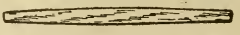
No. 24—2¾x36, full doz., price.. **1.30**
Less than full doz., each..... **.13**

A Grade.

Mixed second growth hickory.

No. 26—2½x36, full doz., price.. **$1.75**
Less than full doz., each..... **.16**

No. 28—2¾x36, full doz., price.. **1.90**
Less than full doz., each..... **.18**

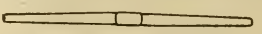


PLOW SINGLETREE WOODS.

Oval.

Forest Hickory. 2¼x32.

No. 30—Full doz. Price..... **$0.85**
Less than full doz., each..... **.08**



ROUND END SINGLETREE WOODS.

We have two grades, the B grade, made up of partly forest hickory, and partly second growth ash. The A grade contains only extra select Indiana hickory.

Buggy size, 1¾x40-in. long.
Express size, 2⅛x40-in. long.

No. 10—B grade, buggy size singletrees, price full..... **$1.10**
Less than full doz., each..... **.10**

No. 11—B grade, express size, price per full doz..... **1.40**
Less than full doz., each..... **.12**

No. 12—A grade, buggy size, price per full doz..... **1.70**
Less than full doz., each..... **.17**

No. 13—A grade, express size, price per full doz..... **2.00**
Less than full doz., each..... **.18**

SINGLETREES AND NECK YOKES, IRONED.

WAGON SINGLETREES.
Selected Stock, Heavy Irons.

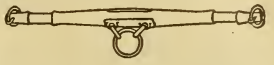
No. 80—Forest hickory, ironed with ferules and hooks, 2⅝x36, full doz., price **$4.50**
Less than full doz., each..... **.40**

WAGON SINGLETREES.
Selected Stock, Heavy Irons.

No. 82—Forest hickory, ironed with straps and hooks, 2⅝x36, full doz., price **$5.00**
Less than full doz., each..... **.45**

PLOW SINGLETREES.
Selected Stock, Heavy Irons.

No. 84—Forest hickory, ironed with ferules and hooks, 2½x30, full doz., price **$3.30**
Less than full doz., each..... **.30**



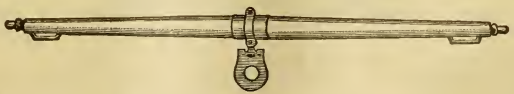
WAGON NECK YOKES.
Selected Stock, Heavy Irons.

No. 86—Forest hickory, well ironed with heavy irons, 2⅝x40, full doz., price **$5.25**
Less than full doz., each..... **.45**
No. 88—2¾x44, full doz., price.. **7.00**
Less than full doz., each..... **.60**

STANDARD NECK YOKES AND NECK YOKE CENTERS.

The Standard Neck Yoke Center is made with a heavy steel band encircling the neck yoke, and fastened by means of screws. The leather center is very heavy and strong. These neck yokes are 43 inches long and finished with acorn tips.

No. 2—Common buggy size, in the white, price per doz..... **$3.00**
Less than half a dozen, each..... **.30**
No. 6—Heavy express size, in the white, per doz..... **4.00**
Less than half a dozen, each..... **.40**
No. 20—Common buggy size, painted either black or red, per doz..... **4.25**
Less than half a dozen, each..... **.40**
Standard Neck Yoke Centers only, either buggy or express size, each..... **.25**

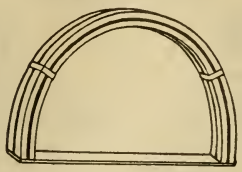


BUCKEYE SWIVEL ADJUSTABLE NECK YOKES AND EXTRA CENTERS.

The Buckeye Center is a heavy, serviceable swivel center, guaranteed free from all noise and rattle, easily attached and very strong.

No. 2—Common buggy size, in the white, price per doz..... **$3.75**
Less than half a dozen, each..... **.35**
No. 6—Heavy express size, in the white, price per doz..... **4.75**
Less than half a dozen, each..... **.45**
Buckeye Neck Yoke Centers only, either buggy or express size, each..... **.30**

BUGGY RIMS.



HICKORY BUGGY RIMS.

XXX Select.

We handle nothing in this line but strictly XXX select stock. Though the original cost of this grade is a few cents higher on a set of rims than the cost of cheaper grades, yet this slight difference is more than made up in the time it takes to put on a set, as every workman knows.

Our rims are all thoroughly seasoned and free from imperfections. They are left square. We do not handle any beveled rims. Our stock is all put up half a set in a bundle. A bundle contains four pieces all of one height, and we do not break bundles.

We sell half sets, however, of one height without extra charge and our customers will find it is a great advantage to have rims put up in this way.

We carry in stock the following heights in all of these sizes which we list below: 36-in., 38-in., 40-in., 42-in., 44-in., 46-in. and 48-in.

Be sure to give height when ordering.

Tread. Depth.

⅞ x 1⅛ per set	**$1.30**
1 x 1⅛ per set	**1.30**
1 x 1¼ per set	**1.40**
1⅛ x 1¼ per set	**1.40**
1¼ x 1⅜ per set	**1.70**
1⅜ x 1½ per set	**2.00**
1½ x 1¾ per set	**2.50**

FINISHED BUGGY RIMS.

These rims are select hickory, rounded, bored and finished, ready to put on the wheels.

The spoke holes in ¾-inch rims are bored $\frac{7}{16}$. In ⅞-inch rims and 1-inch rims, the spoke holes are bored ½-inch.

The rims are made for regular Sarven wheels having 16 spokes, and therefore cannot be used on wheels having 14 spokes.

As a time-saver and money-saver for the repair shop, our finished rims have no equal, and besides, they give a better finish to a job of repair work, having the same appearance as wheels coming from a wheel factory.

They are put up in bundles containing one-half set all of one height in a bundle, enough for two wheels. We Do Not Break Bundles.

We handle these finished rims in three sizes only as given below, and have these three sizes in the following heights: 36-in., 38-in., 40-in., 42-in., 44-in., 46-in. and 48-in. Be sure to give height when ordering.

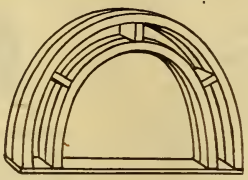
Tread. Depth.

¾ x 1⅛ per set	**$1.50**
⅞ x 1⅛ per set	**1.60**
1 x 1¼ per set	**1.80**

HAY RAKE RIMS.

1¼x1¼, 54-in. high, per set (enough for two wheels) **$1.00**

WAGON RIMS.



BENT OAK WAGON RIMS.

XXX Select.

We handle only the best Indiana timber, and our customers will find these rims to be first class in every respect. In sawing them green, we allow enough margin in width to take care of the shrinkage in drying, making our rims good, full sizes.

We put them up one piece only in a bundle, and therefore make no extra charge for breaking sets. This also enables us to furnish full sets of rims with as much difference in height between front and rear rim as may be wanted. We have the sizes listed below in the following heights: 30-in., 32-in., 34-in., 36-in., 38-in., 40-in., 42-in., 44-in., 46-in., 48-in., 50-in., 52-in. and 54-in.

Be sure to give height when ordering.

Tread.		Depth.		
1¾	x	2¼	per set	$2.80
2	x	2	per set	2.80
2½	x	2	per set	3.10
3	x	1¾	per set	3.40
3	x	2	per set	3.80
4	x	2	per set	5.00

WHITE OAK SAWED PIECE FELLOES.

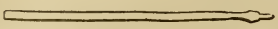
Finished and rounded, but not bored. Put up in two bundles to the set, one bundle of front felloes, and one bundle of hind felloes. We do not break bundles, but will sell half a set, all front, or half a set all hind.

Three sizes only are carried in stock. Other sizes made to order on two weeks' notice, but will not be seasoned.

1½ tread x 2¼ deep, per set	$2.00
1⅝ tread x 2¼ deep, per set	2.00
1¾ tread x 2¼ deep, per set	2.50

For half sets, take half the above price and add 25c.

BUGGY AND WAGON SPOKES.



SARVEN PATENT SPOKES.

Do not order by the set but give number of the spokes wanted. Full bundles include 100 spokes, no extra charge for breaking bundles.

D Grade.

Size 7/8-in., price each.....3½¢
Size 15/16-in., price each.....3½¢
Size 1 -in., price each.....3½¢
Size 1 1/16-in., price each.....3½¢
Size 1 1/8-in., price each.....3½¢
Size 1 1/4-in., price each.....3½¢
Size 1 3/8-in., price each.....4½¢

C Grade.

Size 7/8-in., price each.....4½¢
Size 15/16-in., price each.....4½¢
Size 1 -in., price each.....4½¢
Size 1 1/16-in., price each.....4½¢
Size 1 1/8-in., price each.....4½¢
Size 1 1/4-in., price each.....4½¢
Size 1 3/8-in., price each.....5½¢
Size 1 1/2-in., price each..... 7¢
Size 1 5/8-in., price each..... 8¢

B Grade.

Size 15/16-in., price each.....6¢
Size 1 -in., price each.....6¢
Size 1 1/16-in., price each.....6¢
Size 1 1/8-in., price each.....6¢

SHELL BAND SPOKES.

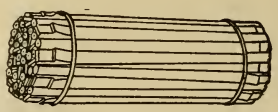
While these are made for Brown Shell Band Wheels, they may also be used for Warner Patent Wheels.

C Grade.

Size 7/8-in., price each.....5¢
Size 15/16-in., price each.....5¢
Size 1 -in., price each.....5¢
Size 1 1/16-in., price each.....5¢
Size 1 1/8-in., price each.....5¢
Size 1 1/4-in., price each.....5¢
Size 1 3/8-in., price each.....6¢

HAY RAKE SPOKES.

These are made in club end, measuring 1 5/8-in., price each.....5¢



HICKORY WOOD HUB SPOKES.

For light wagon and buggy, wood hub wheels. Each set consists of one bundle of 52 spokes.

Size 1 -in., price per set.....**$2.80**
Size 1 1/16 in., price per set..... **2.80**
Size 1 1/8-in., price per set..... **2.80**
Size 1 1/4-in., price per set..... **2.80**
Size 1 3/8-in., price per set..... **2.80**
Size 1 1/2-in., price per set..... **3.30**
Size 1 5/8-in., price per set..... **3.30**
Size 1 3/4-in., price per set..... **3.60**
Size 1 7/8-in., price per set..... **3.60**

For less than a full set of any of the above spokes, we charge, each.....**7¢**

OAK WAGON SPOKES.

Each set consists of one bundle of front spokes and one bundle of hind spokes. When all hind spokes are ordered, add 15¢ per bundle.

XXX Grade.

2 -in., price per set..... **$2.10**
2 1/8-in., price per set..... **2.20**
2 1/4-in., price per set..... **2.30**
2 3/8-in., price per set..... **2.45**
2 1/2-in., price per set..... **2.60**
2 3/4-in., price per set..... **3.15**
3 -in., price per set..... **3.80**

XXXX Extra Selects.

2 -in., price per set..... **$4.00**
2 1/8-in., price per set..... **4.25**
2 1/4-in., price per set..... **4.45**
2 3/8-in., price per set..... **4.65**
2 1/2-in., price per set..... **4.95**

Genuine Second Growth Spokes.

2 -in., price per set..... **$5.35**
2 1/8-in., price per set..... **5.75**
2 1/4-in., price per set..... **6.00**
2 3/8-in., price per set..... **6.25**
2 1/2-in., price per set..... **6.60**
2 3/4-in., price per set..... **8.10**
3 -in., price per set..... **9.85**

BUGGY AND EXPRESS BOWS.

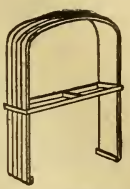
BUGGY BOWS.

Our buggy bows are made of strictly all white second growth ash, and are put up four sets in a bundle. When ordering be sure to give the width inside, as this is very important.

Sizes from 32 to 42 inches, in full bundles ,per set .....**30¢**
Less than full bundles, per set...**35¢**

Sizes from 43 to 50 inches, in full bundles, per set .....**50¢**
Less than full bundles, per set...**60¢**

LONG EXPRESS BOWS.



"Flat Top" Pattern.
Size ¾x1½.

Give width of bows, inside measure, when ordering.

Following widths in stock: 34-in., 36-in., 38-in., 40-in., 42-in., 44-in., 46-in., 48-in.

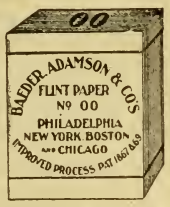
Price per set, five bows **$1.50**
We do not break sets.

AUTO TOP BOWS.

Standard shape. Size 1x1½. Give width of bows, inside measure, when ordering. Following widths in stock: 48-in., 50-in., 52-in., 54-in., 56-in., 58-in., 60-in., 62-in.

Price per bow, each piece .....**25¢**

CARRIAGE WOODWORKERS' SUPPLIES.



A GRADE SAND PAPER.
Baeder & Adamson.

Size of Sheets, 9x11.

No. **00**—Per quire, 24 sheets.....**17¢**
No. **0**—Per quire, 24 sheets.....**17¢**
No. **½**—Per quire, 24 sheets.....**17¢**
No.. **1**—Per quire, 24 sheets.....**18¢**
No. **1½**—Per quire, 24 sheets.....**19¢**
No. **2**—Per quire, 24 sheets.....**20¢**

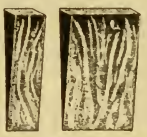
IMPERIAL SAND PAPER.
Good Quality.

Sizes of Sheets, 8¾x10½.

No. **00**—Per quire, 24 sheets.....**10¢**
No. **0**—Per quire, 24 sheets.....**10¢**
No. **½**—Per quire, 24 sheets.....**10¢**
No. **1**—Per quire, 24 sheets.....**11¢**
No. **1½**—Per quire, 24 sheets.....**11¢**
No. **2**—Per quire, 24 sheets.....**12¢**

STICK GLUE.

Fine quality, in bulk, per lb.....**20¢**



SPOKE WEDGES.

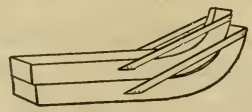
These are the handiest things around a shop. Put up in sacks of 1000 and we do not break packages.

Size ⅜, price per thousand.....**55¢**
Size ½, price per thousand.....**55¢**
Size ⅝, price per thousand.....**60¢**
Size ¾, price per thousand.....**65¢**

LE PAGE'S LIQUID GLUE.

Half pint cans, each.....**25¢**
Pint cans, each.....**40¢**
Quart cans, each.....**75¢**

BOB SLED AND CUTTER MATERIAL AND SUPPLIES.



BOB RUNNERS.

Made of first class rock elm, four pieces to a set. All are regular bend and 5 ft. 10-in. long. We carry these in stock, ready for instant shipment.

2-in. tread x 3½-in. deep, set.....**$2.10**
2-in. tread x 4 -in. deep, set..... **2.40**

BOB SLED TIMBER.

We give here a list of pieces of first class white oak which we carry in stock for use in bob sled work. These pieces are full size, and are surfaced on all four sides.

	Price each
No. 1—Size 3 x 3½ x 4 ft.....	**25¢**
No. 2—Size 1½ x 8 x 5 ft.....	**35¢**
No. 3—Size 3½ x 4½ x 4 ft.....	**40¢**
No. 4—Size 3½ x 5 x 4 ft.....	**45¢**
No. 5—Size 2½ x 12 x 2 ft. 6-in....	**35¢**
No. 6—Size 2 x 6 x 2 ft. 6-in....	**20¢**
No. 7—Size 3½ x 3½ x 4 ft.....	**35¢**

CAST IRON BOB SLED KNEES.

Each knee weighs about 12 pounds; 8-in. bench; 6-in. high; 6-in. on runner. Eight pieces to the set.

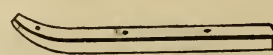
Price per set **$3.20**

SLEIGH SHOE BOLTS.

3½x⅜, price each.....**2¢**
4 x⅜, price each.....**2¢**
4½x⅜, price each.....**2¢**
5 x⅜, price each.....**2¢**
5½x⅜, price each.....**2¢**

LONG BOB SLED BOLTS.

15x⅝, per bolt.....**6¢**
16x⅝, per bolt.....**6¢**



CAST IRON BOB SLED SHOES.

Light Pattern.

This is the pattern commonly used on light two-horse bob sleds. The soles measure 1¾-in. wide where they go on the runner, and 1½-in. wide on the ground. Made of first class cast iron. Four pieces to a set.

1¾-in. tread x 36-in. long, set.....**$2.70**
1¾-in. tread x 38-in. long, set..... **2.80**
1¾-in. tread x 40-in. long, set..... **2.90**
1¾-in. tread x 42-in. long, set..... **3.00**

Heavy Pattern.

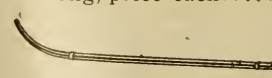
This is the regular heavy pattern, such as we have sold for many years, for heavy two-horse bob sled work, especially new work. These soles measure 2-in. wide where they go on the runner, and 1¾-in. wide on the ground. Only first class iron used in these. Four pieces to a set.

2-in. tread x 36-in. long, per set...**$2.90**
2-in. tread x 38-in. long, per set... **3.10**
2-in. tread x 40-in. long, per set... **3.40**
2-in. tread x 42-in. long, per set... **3.60**

STEEL BARS FOR SLED SOLES.

This is a special quality of steel, square edge, for use as bob sled shoes. One size only, carried in stock, 2-in. wide, ⅝-in. thick, square edge.

Bars 14 ft. long, price each.....**$1.50**
Bars 16 ft. long, price each..... **1.70**

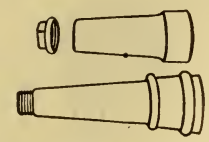


STEEL CUTTER SHOES.

Bent and tapered; correct length for single cutter.

¾x$\frac{5}{16}$, per pair.....**45¢**
¾x⅜, per pair.....**47¢**
⅞x$\frac{5}{16}$, per pair.....**55¢**
⅞x$\frac{7}{16}$, per pair.....**57¢**
⅞x⅜, per pair.....**57¢**
⅞x$\frac{7}{16}$, per pair.....**59¢**
1 x⅜, per pair.....**63¢**
1 x$\frac{7}{16}$, per pair.....**75¢**
1 x½, per pair.....**80¢**

WAGON SKEINS AND STEEL SHAFT ENDS.



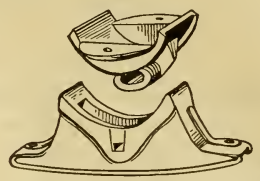
CAST IRON THIMBLE SKEINS.

Our skeins are the regular D. V. pattern, and in all but a few odd sizes, we can furnish the Anderson Leader pattern, which is exactly the same as the D. V. pattern, with same shape and size, but the shoulder has small lugs cast on it so that a truss rod can be put on if desired. The skein may be used just as well without a truss rod, however, if desired. We make no extra charge for this Anderson Leader pattern. A set consists of four skeins, with boxing and nuts. We do not sell separate boxing or nuts.

2¼x 7	price per set	$1.30
2¼x 7½	price per set	1.40
2½x 7	price per set	1.55
2½x 7½	price per set	1.55
2½x 8	price per set	1.65
2¾x 8	price per set	1.85
2¾x 8½	price per set	1.90
3 x 9	price per set	2.10
3¼x 9	price per set	2.45
3¼x10	price per set	2.60
3¼x11	price per set	2.70
3½x10	price per set	2.80
3½x11	price per set	2.90
3¾x11	price per set	3.15
3¾x12	price per set	3.30
4 x12	price per set	3.70

SKEIN BOLTS.

¾x9	price each	6¢
⅝x8½	price each	5¢
⅝x8	price each	5¢
⅝x7½	price each	4¢
⅝x7	price each	4¢
½x7	price each	4¢
½x6½	price each	4¢



STANDARD OSCILLATING SLEIGH KNEES.

We consider them the best oscillating knees on the market. There are no raves to forge out or other blacksmithing to do.

They have a long bearing on the runner. There are very few holes to bore, and very few bolts to furnish. The runner is not weakened. There is sure oscillation and the bobs are easily taken apart, when not in use.

One size only carried in stock. Other sizes can be furnished promptly, and prices made on application.

Size **No. 3** carried in stock, made to fit 2-inch runners. Has bearing on runner, 15½ in.

Height from top of runner to bottom of beam, 4½ in.

Price per set of four knees.....**$3.15**

STEEL SOCKET SHAFT ENDS.

These are made of double tube steel, fully japanned with nickel tip, and are used for repairing broken shafts and also for strengthening new work. Broken shafts can be repaired in this way in five minutes, and the shafts will be much stronger than they were in the first place. In appearance, when on the shaft, they are equal to best leather finish. They are made in two sizes.

Buggy size, price each.....**23¢**

Surrey, Cart and Express size.....**33¢**

These shaft ends are never sold by the pair, only by the piece.

WROUGHT IRONS FOR WAGON SINGLETREES.

WELDED CLIPS WITH RINGS.

	Round part Clip	Iron in Ring	Price each
No. 3520—B	5/8	9/16	8 ¢
No. 3520—C	5/8	1/2	7½¢
No. 3520—D	9/16	1/2	7 ¢
No. 3520—E	9/16	7/16	6½¢

STRAIGHT CENTER CLIPS.

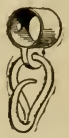
	Round part Clip	Total Length	Price each
No. 3500—C	5/8	11	4½¢
No. 3500—D	9/16	10	4 ¢
No. 3500—E	1/2	9	3½¢
No. 3500—F	7/16	8	3 ¢

STRAIGHT END CLIPS.

	Round part Clip	Total Length	Price each
No. 3505—M	3/8	7	2¢

WELDED CENTER CLIPS.

	Round part Clip	Price each
No. 3510—C	5/8	5 ¢
No. 3510—D	9/16	4½¢
No. 3510—E	1/2	4 ¢
No. 3510—F	7/16	3½¢



DIRECT PULL FERULES AND HOOKS.

	Ferule inside small end	Iron in hook	Price each
No. 3555—A	1¼	3/8	6 ¢
No. 3555—B	1⅜	3/8	6½¢
No. 3555—C	1½	3/8	7 ¢
No. 3555—D	1½	7/16	8 ¢
No. 3555—E	1⅝	7/16	9 ¢

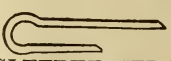
SINGLETREE FERULES AND HOOKS.

	Ferule inside small end	Iron in hook	Price each
No. 3550—A	1¼	3/8	5 ¢
No. 3550—B	1⅜	3/8	5½¢
No. 3550—C	1½	3/8	6 ¢
No. 3550—D	1½	7/16	7 ¢
No. 3550—E	1⅝	7/16	8 ¢

WELDED CLIPS AND HOOKS.

In Pairs, Right and Left.

	Round part Clip	Iron in hook	Price each
No. 3540—C	1/2	7/16	6¢
No. 3540—D	7/16	3/8	5¢



SINGLETREE STRAPS.

Bent to fit Singletree.

	Size of round	Diam. of opening	Price each
No. 3565—A	1/2	1¾	4½¢
No. 3565—C	5/8	2-in	6 ¢

SMALL EYE SINGLETREE HOOKS.

No. 3580—B. Size 3/8, price each....3¢

LARGE EYE SINGLETREE HOOKS.

No. 3585—A. Size 7/16, price each..3½¢

No. 3585—B. Size 3/8, price each..3 ¢

WROUGHT IRONS FOR NECK YOKES, DOUBLETREES, ETC.

NECK YOKE CENTER IRONS.

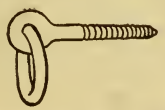
Complete with plates.

	Size ring	Inside diam.	Size eyes	Size links	Price each
No. **3600—A**	9/16	3¼	7/16	⅜	**14¢**
No. **3600—B**	⅝	3½	½	7/16	**17¢**

NECK YOKE END IRONS.

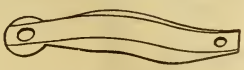
Ferules and Rings.

	Ferule inside small end	Iron in ring	Price each
No. **3605—A**	1¼	⅜	**5 ¢**
No. **3605—B**	1⅜	⅜	**5½¢**
No. **3605—C**	1½	⅜	**6 ¢**
No. **3605—D**	1½	7/16	**6½¢**
No. **3605—E**	1¾	7/16	**8 ¢**



NECK YOKE EYES AND RINGS.

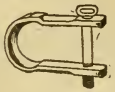
	Size of eye	Size of ring	Price each
No. **3620—A**	½	⅜	**5½¢**
No. **3620—B**	9/16	7/16	**6½¢**



HAMMER STRAPS.

No. **3235—A.** Heavy pattern, 8¾ center to center of holes, each...**5½¢**

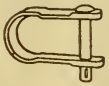
No. **3235—B.** Light pattern, 7¾ center to center of holes, each...**4½¢**



SCREW PIN CLEVISES.

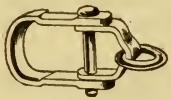
No. **3425—A.** Opening of clevis 2-in. Length inside of pin 3½-in. Length over all, 4¾-in., each.....**6¢**

No. **3425—D.** Opening of clevis 2½-in. Length inside of pin, 4¾-in. Length over all, 6¼-in., each.....**7¢**



ROUND PIN CLEVISES.

No. **3430—A.** Heavy pattern, opening of clevis, 2⅛-in.; length inside of pin, 3½-in.; length over all, 4¾-in. Each .....**6¢**

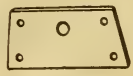


LOCK PIN CLEVISES.

No. **3415—A.** For regular doubletrees. Clevis, clip and stay chain ring complete. Each.....**9¢**

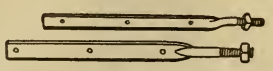
DOUBLETREE PLATES.

No. **3300—A.** Length, 4⅛-in.; width, 3-in.; size of center hole, ¾-in. Price each .....**3¢**



TONGUE PLATES.

No. **3295—A.** Length, 7-in., tapering to 6¼. Width, 3-in. Center holes, ¾-in. Price each.....**5¢**

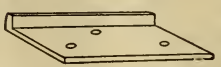
WROUGHT IRONS FOR WAGON BOXES.

WAGON BOX STRAP BOLTS.

Made of rolled steel, nicely finished, and ready for use. They are done up one set (eight bolts) in a bundle, and we do not break bundles. The lengths given below are the total length over all. The shank is 3¼ inches long. Please order these by number.

No.	Length	Size of Shank	Price Per Set
3150—A	10-in.	7/16	**23c**
3150—C	10-in.	½	**28c**
3150—D	12-in.	½	**30c**
3150—F	10-in.	9/16	**30c**
3150—G	12-in.	9/16	**33c**
3150—H	14-in.	9/16	**34c**
3150—L	10-in.	5/8	**32c**
3150—M	12-in.	5/8	**33c**
3150—P	14-in.	5/8	**37c**
3150—V	18-in.	5/8	**46c**

WAGON BOX SIDE BRACES.

No.	Size of iron	Length over all	Price each
3155—A	7/16	15½	**5¢**
3155—B	½	15½	**6¢**
3155—C	9/16	15½	**7¢**



WAGON RUB IRONS.

No. 3165—A. Length over all, 5½, width over all, 2½; per pair.....**10¢**

CUT UNDER RUB IRONS.

Extreme width, 8 inches. Price per pair .....**25¢**

WAGON BOX RODS.

No. 3120—A. Narrow track, common wagon box rods, ⅜ diameter; length from eye to point of rod, 39 inches. Price each.....**6½c**

No. 3121—A. Wide track common wagon box rods, ⅜ diameter; length from eye to point of rod, 43 inches. Price each.....**7c**

WAGON BOX RODS.

No. 3103—A. Narrow track wagon box rod with patent shoulder, ⅜ diameter; length from shoulder to point of rod, 39 inches. Price.....**7c**

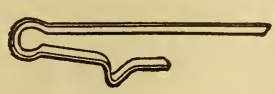
No. 3104—A. Wide track wagon box rod with patent shoulder, ⅜ diameter; length from shoulder to point of rod, 43 inches. Price.....**7¢**

WAGON BOX RODS.

No. 3110—A. Narrow track wagon box rod, patent shoulder and round nuts and washer, 7/16 diameter; length 39 inches. Price each.....**9½¢**

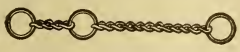
No. 3110—C. Wide track wagon box rod, patent shoulder and round nut and washer, 7/16 diameter; length 43 inches. Price each.....**10¢**

WROUGHT IRON WAGON HARDWARE.



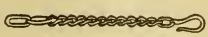
POLE CAPS.

No. **3260**—Heavy pattern, pole cap and hold back in one piece, each..**10¢**



TONGUE CHAINS.

No. **3325—A.** Wagon tongue chains, 33-in. long, $\frac{5}{16}$ twisted link, price each .....**15¢**



WAGON STAY CHAINS.

No. **3315—A.** Wagon stay chains, 24-in. long, $\frac{5}{16}$ twisted link, price each .....**11¢**

SEAT SPRING HOOKS.

Made of rolled steel, ¼ inch thick.

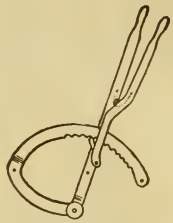
No. **3160—A.** 2½-in. drop, each....**3¢**
No. **3160—B.** 3 -in. drop, each....**3¢**
No. **3160—C.** 3½-in. drop. aech....**3¢**
No. **3160—D.** 4 -in. drop, each....**3¢**

If above items are ordered by the pound instead of by the piece, per pound .....**5¢**

TOP BOX FASTENERS.

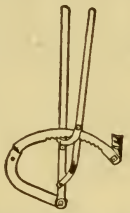
Smith's Patent.

No. **3135—A.** For double box, price per set.....**20¢**
No. **3135—B.** For triple box, price per set.....**30¢**



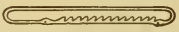
COLLINS WAGON BRAKES
Double Lever.

Price each .....**40¢**



HURLBURT WAGON BRAKES
With Whip Holder.

Price each .....**35¢**



WAGON BRAKE RATCHETS.

No. **3030—A.** With guard, total length 18-in., price each.....**28¢**

WAGON BOX STAPLES
To Clinch.

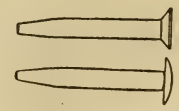
No. **3180—C.** Width, 1¾-in., each..**1¢**
No. **3180—D.** Width, 2 -in., each..**1¢**

WAGON BOX STAPLES
To Rivet.

	Width inside	Depth inside	Price each
No. **3170—B.**	1¾-in.	¾-in.	**1¢**
No. **3170—C.**	2 -in.	¾-in.	**1¢**

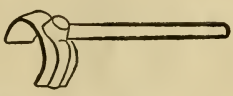
If above items are ordered by the pound instead of by the piece, per pound .....**6¢**

WROUGHT IRON WAGON HARDWARE.



WAGON KING BOLTS.

Length, 14 inches.		Price each
No. 3220—E.	Countersunk, 7/8-in..	9¢
No. 3220—F.	Button head, 7/8-in...	9¢
No. 3220—G.	Countersunk, 1-in...	10¢
No. 3220—H.	Button head, 1-in....	11¢
No. 3220—K.	Countersunk, 1 1/8-in.	14¢
No. 3220—L.	Button head, 1 1/8-in..	14¢
No. 3220—M.	Countersunk, 1 1/4-in.	18¢
No. 3220—N.	Button head, 1 1/4-in..	18¢



STEEL WAGON WRENCHES.

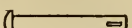
Shanks measure 5/8x9 inches.

	Size of Opening	Price each
No. 3250—A.	2 1/8	8¢
No. 3250—E.	2 1/4	8¢
No. 3250—B.	2 1/2	8¢
No. 3250—C.	2 3/4	8¢

PATENT CIRCLE POSTS.

Made for 5/8 circle. Size of bolt, 7/16 x5 1/4.

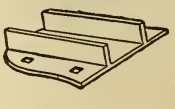
No. 3340—B. Price each.....7¢



REACH PINS.

Finished with Slotted Holes.

No. 3225—A. Size, 5/8, price each..4¢
No. 3225—B. Size, 3/4, price each..5¢



CAST IRON REACH PLATE.

No. 100—	Size, 1 1/4x3, each.....	20c
No. 200—	Size, 2 x3 1/2, each.....	25c
No. 300—	Size, 2 x4, each.....	30c
No. 400—	Size, 2 x4 1/2, each.....	35c

FLANGED BLOSTER PLATES.

Made of rolled steel, with raised collar on one side and large hole in the other to receive collar. This bolster plate has all the advantages of both the wrought and cast iron plate. Eight inches long from center to center of end holes. All of the plates are 1/16 thick. The top plates are ten inches long and the bottom plates 12 inches long over all.

No. 3200—C.	2 3/4 wide, made for 7/8 king bolt, per pair	28¢
No. 3200—D.	3-in. wide, made for 1-inch king bolt, per pair	30¢
No. 3200—E.	3 1/4-in. wide, made for 1 1/4-in. king bolt, per pair	34¢
No. 3200—F.	3 1/2-in. wide, made for 1 1/4-in. king bolt, per pair	36¢

WROUGHT IRON CARRIAGE HARDWARE.

BODY LOOPS.

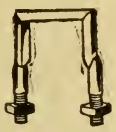
Flat part 7 inches long, reinforced. Four pieces to a set.

No. 1118—A. 5 -in. drop, set...**50¢**
No. 1118—C. 5½-in. drop, set...**50¢**
No. 1118—E. 6 -in. drop, set...**50¢**
No. 1118—G. 6½-in. drop, set...**50¢**

BAILEY BODY HANGERS.

Rolled steel, best on the market. Made to clip to the spring. We carry the following widths in stock, all regular 4-in. drop. Measured from outside to outside of the hanger.

No. 1005—S. 16-in., per pair.....**75¢**
No. 1005—V. 17-in., per pair.....**75¢**
No. 1005—A. 18-in., per pair.....**75¢**
No. 1005—B. 19-in., per pair.....**75¢**
No. 1005—C. 20-in., per pair.....**75¢**
No. 1005—D. 21-in., per pair.....**75¢**
No. 1005—E. 22-in., per pair.....**75¢**
No. 1005—F. 23-in., per pair.....**75¢**
No. 1005—G. 24-in., per pair.....**75¢**
No. 1005—L. 27-in., per pair.....**75¢**



BAILEY SHORT SPRING CLIPS.

Made especially for attaching the above described body hangers to the springs. All are made with ⅝ shank, and to fit 1¼ springs.

No. 2122—A. Flat part ¾, suitable for two-leaf springs, pair...**10¢**
No. 2122—B. Flat part 1-in., suitable for three-leaf springs, pair...**10¢**
No. 2122—C. Flat part 1¼, suitable for four-leaf springs, pair...**10¢**

Two pairs of clips are required to put on a full set of Bailey hangers.

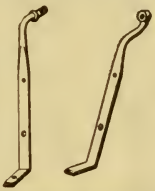
LAMP FINGERS
For Canopy Top Standards.

No. 1885—A. Length over all, 5½ inches, price each.....**4¢**

PROP IRONS.

For the rear corners of phaetons and phaeton seats.

No. 1900—B. For regular work. Price per pair.....**25¢**



GOOSE NECKS.

For phaetons or surrey seats.

No. 1906—K. For regular work. Price per pair.....**25¢**
No. 1911—G. For ironing front seat of a surrey for an extension top. Price per pair.....**25¢**

STAY BRACES.

Lengths are always given from center to center of inside holes.

No. 2000—D. ⅜ oval iron, 24-in. long, per pair.....**20¢**
No. 2000—G. ⅜ oval iron, 26-in. long per pair.....**20¢**
No. 2040—A. ½ round iron, 33-in. long, per pair.....**30¢**
No. 2040—B. ½ round iron, 36-in. long, per pair.....**30¢**
No. 2040—G. ⅝ round iron, 33-in. long, per pair.....**35¢**
No. 2040—K. ⅝ round iron, 36-in. long, per pair.....**35¢**
No. 2040—H. ⅝ round iron, 33-in. long, per pair.....**40¢**
No. 2040—L. ⅝ round iron, 36-in. long, per pair.....**40¢**

CARRIAGE AND WAGON HARDWARE.

WAGON JACKS.

Our No. 1 Wagon Jack is the strongest all-steel jack on the market.

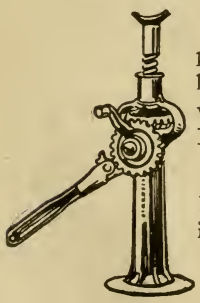
Price, each .....**75¢**

GOSHEN LIFTING JACKS.

Will lift one ton with very little effort. The best vehicle jack on the market.

Price, each **$1.00**

RELIABLE AUTO JACKS.



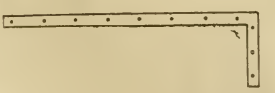
Safe, strong, compact and durable. The lever does not interfere with springs or body. Easy of operation.

Adjustment from 10½ inches to 18 inches.

Weight, 5 lbs.

Capacity, 5 tons.

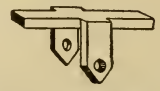
Price each **$1.50**



WROUGHT BODY CORNER IRONS.

In sets, each set made up of two long and short irons. Flat top.

¼ and $\frac{5}{16}$, per doz. sets.....**65¢**
Less than full doz., per set..... **6¢**
⅜ and $\frac{7}{16}$, per doz. sets.....**75¢**
Less than full doz., per set..... **7¢**
½-in., per doz. sets.....**85¢**
Less than full doz., per set..... **8¢**



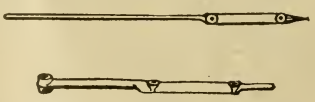
BODY COUPLINGS.

For attaching the rear springs of a platform gear to the body.

For 1½-in. springs, per pair.....**$1.10**
For 1¾-in. springs, per pair..... **1.25**
For 2 -in. springs, per pair..... **1.50**

SHAFT IRONS.

No. **2235—F.** Made of beveled edge iron 1¼x$\frac{5}{16}$, with 1-in. shaft eyes, per pair.....**50¢**



POLE BRACE BLANKS.

These are sold in sets consisting of two brace ends, and two eye ends, as shown in above cuts.

No. **2271—F.** Size of iron in brace $\frac{5}{16}$, with 1-in. eye, per set...**40¢**

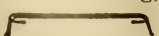
SPECIAL DASH FEET.

No. **5250—A.** With toe rail bracket; projection of foot, 1-in., per pair .....**10¢**

TOE RAILS.

For use with above dash feet.

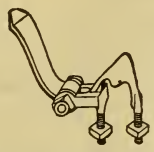
No. **5275—A.** 20-in. long, each...**10¢**
No. **5275—C.** 22-in. long, each...**10¢**



ROLLED STEEL TOE RAILS.

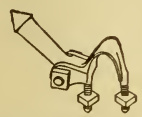
No. **1510—C.** 21-in. long, each...**12¢**
No. **1510—E.** 23-in. long, each...**12¢**

COUPLINGS FOR SHAFTS AND POLES.



FINISHED SHAFT COUPLINGS
Complete with Bolts and Eyes.

	Eye	Bolt		
No. 0	7/8-in.	5/16	Per pair....	24c
No. 1	1 -in.	3/8	Per pair....	24c
No. 3	1 1/8-in.	7/16	Per pair....	36c
No. 4	1 1/4-in.	7/16	Per pair....	42c



FINISHED POLE COUPLINGS.
Complete with Bolts and Eyes.

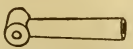
	Eye	Bolt		
No. 0	7/8-in.	5/16	Per pair....	24c
No. 1	1 -in.	3/8	Per pair....	24c
No. 3	1 1/8-in.	7/16	Per pair....	36c
No. 4	1 1/4-in.	7/16	Per pair....	42c

COUPLING CLIPS WITH BOLTS.

	Eye	Bolt		
No. 0	7/8-in.	5/16	Per pair....	15c
No. 1	1 -in.	3/8	Per pair....	15c
No. 3	1 1/8-in.	7/16	Per pair....	25c
No. 4	1 1/4-in.	7/16	Per pair....	30c

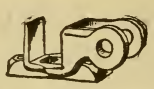
SHAFT EYES.

	Eye	Bolt hole		
No. 2145—A.	7/8	5/16	Per pair..	9c
No. 2145—C.	1	3/8	Per pair..	9c
No. 2145—E.	1 1/8	7/16	Per pair..	11c
No. 2145—F.	1 1/4	7/16	Per pair..	13c



POLE EYES.

	Eye	Bolt hole		
No. 2148—A.	7/8	5/16	Per pair..	9c
No. 2148—C.	1	3/8	Per pair..	9c
No. 2148—E.	1 1/8	7/16	Per pair..	11c
No. 2148—F.	1 1/4	7/16	Per pair..	13c

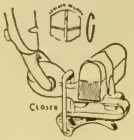


MALLEABLE SHAFT COUPLINGS
Used with Common Axle Clips.

No. 3910—C. Fits 1-in. axle and 1-in. shaft eye, per pair..... **8¢**
No. 3910—H. Fits 1 1/8 axle and 1 1/8 shaft eye, per pair.....**10¢**
No. 3910—M. Fits 1 1/4 axle and 1 1/8 shaft eye, per pair.....**12¢**

ONEIDA BIKE COUPLINGS.

May be used on any buggy, driving wagon or bike wagon. Used with common shaft shackles and bolts, it forms a perfect anti-rattler. Easiest to attach to pole or shafts. Never gets out of order.
Price per pair (made for either pole or shafts, as desired).....**25¢**
Extra pairs round rubber bushing for over the bolt, per pair.....**10¢**



BRADLEY COUPLINGS.

No. 8—For ordinary buggies.
No. 9—For surreys and heavy work.
When ordering, please state whether for poles or shafts.

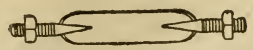
	No. 8	No. 9
Complete couplings, per pair.	**40¢**	**50¢**
Axle part only, no pole or shaft eyes, per pair.....	**30¢**	**40¢**
Pole eyes or shaft eyes, per pair	**10¢**	**10¢**
Extra molded leather packings, per doz. pairs.....	**60¢**	**60¢**

POINT CENTER AXLE CLIPS.

With 3/8 shank, for Bradley couplings.
No. 8—Flat part 2 3/4-in., per pair...**10¢**
No. 9—Flat part 3 -in., per pair...**10¢**

WROUGHT IRON CLIPS.

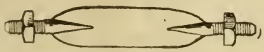
Order by Number.



STANDARD AXLE CLIPS.

5/16 Shank. Flat part 7/8 wide.

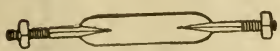
	Length of Flat Part		
No. 2¼	2¼	Per 100.....	$1.65
No. 2¾	2¾	Per 100.....	1.65
No. 3¼	3¼	Per 100.....	1.65
No. 3¾	3¾	Per 100.....	1.90
No. 4¼	4¼	Per 100.....	2.15
No. 4¾	4¾	Per 100.....	2.40
No. 5¼	5¼	Per 100.....	2.60
No. 6	6	Per 100.....	3.00



HEAVY AXLE CLIPS.

3/8 Shank. Flat part 1¼ wide.

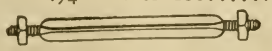
	Length of Flat Part		
No. 3½	3½	Per 100.....	$2.25
No. 4	4	Per 100.....	2.60
No. 4½	4½	Per 100.....	3.00
No. 5	5	Per 100.....	3.30
No. 5½	5½	Per 100.....	3.70
No. 6	6	Per 100.....	4.05
No. 6½	6½	Per 100.....	4.40
No. 7	7	Per 100.....	4.75



TIMKEN AXLE CLIPS.

5/16 Shank. Flat part 7/8 wide. This style of clip has extra long shanks, both being 2¼ long.

	Length of Flat Part		
No. 2¼	2¼	Per 100.....	$2.35
No. 3¼	3¼	Per 100.....	2.85
No. 3½	3½	Per 100.....	2.95
No. 4¼	4¼	Per 100.....	3.35



SPRING BAR CLIPS

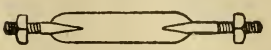
Ribbed Pattern.

5/16 Shank. Flat part 5/8 wide.

	Length of Flat Part		
No. 4	4	Per 100.....	$2.45
No. 4¾	4¾	Per 100.....	2.80
No. 5¼	5¼	Per 100.....	3.05
No. 5¾	5¾	Per 100.....	3.35
No. 6⅜	6⅜	Per 100.....	3.60
No. 7	7	Per 100.....	3.85
No. 7¾	7¾	Per 100.....	4.20

CONCORD WAGON CLIPS.

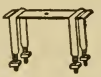
	Length of Flat Part		
No. 7	7	Per 100.....	$5.80
No. 8	8	Per 100.....	6.75
No. 9	9	Per 100.....	7.70
No. 10	10	Per 100.....	8.65



BREWSTER SIDE BAR CLIPS.

5/16 Shank. Flat part 7/8 wide. One shank is 2-in. long, and the other shank is 1¼-in. long.

	Length of Flat Part		
No. 3	3	Per 100.....	$1.90
No. 3¾	3¾	Per 100.....	2.25
No. 4¼	4¼	Per 100.....	2.50

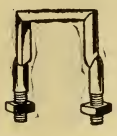


THREE PIECE SADDLE CLIPS.

5/16 Shank. In sets, each set consisting of two clips and one plate. On every order we must know the size of spring and length of flat part of clips.

	Size Spring	Length of Flat Part		
No. 10	1¼	1¾	Per set.....	8¢
No. 11	1¼	2	Per set.....	8¢
No. 12	1¼	2¼	Per set.....	8¢
No. 13	1¼	2½	Per set.....	8¢
No. 14	1¼	2¾	Per set.....	10¢
No. 15	1¼	3	Per set.....	10¢
No. 16	1¼	3¼	Per set.....	10¢
No. 17	1¼	3½	Per set.....	10¢
No. 18	1¼	3¾	Per set.....	10¢
No. 19	1¼	4	Per set.....	10¢
No. 22	1⅜	2	Per set.....	8¢
No. 24	1⅜	2½	Per set.....	8¢
No. 26	1⅜	3	Per set.....	9¢
No. 28	1⅜	3½	Per set.....	9¢
No. 30	1⅜	4	Per set.....	10¢
No. 32	1½	2	Per set.....	10¢
No. 34	1½	2½	Per set.....	10¢
No. 36	1½	3	Per set.....	10¢
No. 38	1½	3½	Per set.....	10¢
No. 40	1½	4	Per set.....	10¢
No. 42	1½	4½	Per set.....	10¢

AUTOMOBILE CLIPS AND CARRIAGE IRONS.



AUTO SPRING CLIPS

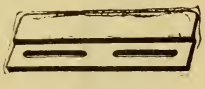
Heavy, Half Oval Pattern.

7/16-inch Shank.

	Size Spring	Length of Flat Part	Price Each
No. **60**	1¾	1½	**12c**
No. **62**	1¾	1¾	**12c**
No. **64**	1¾	1⅞	**12c**
No. **66**	1¾	2½	**12c**
No. **68**	2	1½	**12c**
No. **70**	2	1 11/16	**12c**
No. **72**	2	2½	**12c**

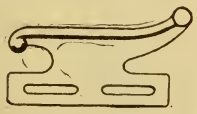
RUB IRONS.

	Width	Length	Pair
No. **1604—B**	1¾	6½	**10¢**
No. **1604—C**	1½	7½	**10¢**



RUB IRONS.

	Width	Length	Pair
No. **1666—B**	2½	5	**10¢**
No. **1666—D**	3	5	**10¢**

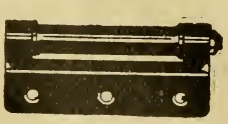


RUB IRONS.

No. **1633—B.** 3-in. wide and 5¾ long, per pair..... **10c**

No. 1200—A ROLLER RUB IRONS.

Suitable for regular side bar buggy, per pair .....**15¢**



No. 20 ROLLER RUB IRONS.

Suitable for heavy spring wagon work, made in the style known as the "G. & T." iron, price per pair.**40¢**

No. 1205—A ROLLER RUB IRONS.

Suitable for regular piano box buggies, per pair.....**16¢**

No. 1207—A ROLLER RUB IRONS.

Suitable for piano box buggies, especially those carrying wide seats which require more than the ordinary projection of rub irons. Price per pair .....**17¢**

No. 1215—B ROLLER RUB IRONS.

Made especially for surreys; price per pair .....**20¢**

MALLEABLE IRONS FOR SINGLETREES & DOUBLETREES.

WHIFFLETREE FERRULES.

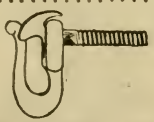
	Dia. Inside small end	Net price per 100
No. 15—C	¾	**$0.50**
No. 15—D	⅞	**.75**
No. 15—E	1	**1.00**
No. 15—F	1⅛	**1.00**
No. 15—G	1¼	**1.00**
No. 15—H	1⅜	**1.50**
No. 15—J	1½	**1.50**

If above items are ordered by the pound instead of by the piece, per pound ..... **8¢**

WHIFFLETREE COCKEYES.

	Size of Shank	Net Price per 100
No. 70—A	⅜	**$1.00**
No. 70—B	7/16	**1.00**

If above items are ordered by the pound instead of by the piece, per pound ..... **8¢**



WHIFFLETREE COCKEYES.

No. 114—B. ½-in. screw. Price each, net ..... **6¢**

WHIFFLETREE HOOKS WITH SPRINGS.

	Diam. small end	Price per pair
No. 115—B	1¼	**18c**
No. 115—C	1⅜	**20c**

WHIFFLETREE PLATES.

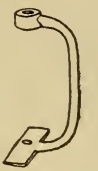
No. 620—Square hole for ⅝ bolt, 3¾ long; net price per 100..... **50¢**

WHIFFLETREE PLATES.

No. 630—B. Round hole for ⅜ bolt, 4½ long; net price per 100..... **$1.25**

WHIFFLETREE CLEVISES.

No. 632—C. Size of cross bar, 1½ x2; whiffletree, 1½; bolt, 5/16; net price each **5c**



WHIFFLETREE CLEVISES.

	Diam. Inside	Size Bolt	Price Each
No. 635—C	4¼	7/16	**6c**
No. 635—H	3¾	⅜	**5c**

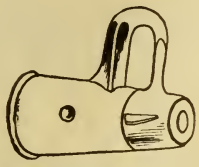
WHIFFLETREE CLEVISES.

	Size Crossbar	Size Whiffletree	Price Each
No. 636—C	1⅜x1⅞	1½	**5c**
No. 636—G	1⅝x2¼	1⅝	**6c**
No. 636—H	1⅝x2½	1⅝	**8c**

FERRULES AND HOOKS FOR ONE-HORSE WAGONS.

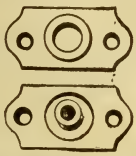
No. 3556—C. Diameter ferrule at small end, 1¼-in.; in pairs right and left, per pair..... **10c**

MALLEABLE IRON HARDWARE.



PREMIUM WHIFFLETREE HOOKS
For Spring Wagon Whiffletrees.

No. **3**—Size 1⅛, per pair.....**25¢**
No. **4**—Size 1¼, per pair.....**30¢**
No. **5**—Size 1⅜, per pair.....**35¢**
No. **6**—Size 1½, per pair.....**40¢**

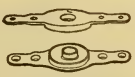


WHIFFLETREE COUPLINGS.
For Express Wagons.

	Width	Lgth.	Bolt	Pair
No. **664—A**	1¾	4	⅜	**10c**
No. **664—B**	2	4¼	⅜	**11c**
No. **664—C**	2¼	4½	7/16	**12c**

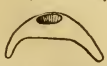
WHIFFLETREE COUPLINGS.

	Width	Lgth.	Bolt	Pair
No. **696—C**	1¾	4½	⅜	**5¢**
No. **696—D**	2	5	7/16	**6¢**
No. **696—G**	2½	5¾	½	**7¢**



WHIFFLETREE COUPLINGS.

	Width	Lgth.	Bolt	Pair
No. **695—B**	1½	4	⅜	**3¢**
No. **695—C**	1¾	4½	⅜	**3¢**
No. **695—D**	2	5	⅜	**4¢**
No. **695—G**	2½	5¾	7/16	**5¢**



BOLT HEADS.

To be used with a tire bolt to form a Tee Head Shaft Bolt.

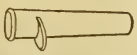
No. **5505—B.** For ¼ Bolts. Price per 100.....**$1.10**

PLATFORM BOLSTER PLATES.

No. **733**—Length 10-in., 2¼ bed, ½-in. king bolt; per pair..... **18c**

PLATFORM BOLSTER PLATES.

	Length	Bed	Bolt	Pair
No. **740—C**	20	1⅞	⅝	**45c**
No. **740—D**	23	2⅛	¾	**55c**



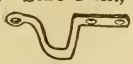
POLE TIPS.

	Diam. Inside	Price Each
No. **3845—A**	1⅛.....	**11c**
No. **3845—B**	1¼.....	**12c**
No. **3845—C**	1⅜.....	**13c**
No. **3845—D**	1½.....	**14c**

SHAFT TIPS.

XC Plated; 1¾ Long.

No. **3825—B.** Size ⅞-in., doz. prs. **50c**
No. **3825—C.** Size 1-in., doz. prs.. **60c**



HOLDBACKS.

No. **3810—A.** For 1-in. straps, 4-in. long, price per pair..... **5c**

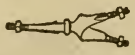
POLE HOLDBACKS.

	Width Inside	Length	Price Each
No. **3875—A**	2	10	**20¢**
No. **3875—D**	2½	14	**25¢**

POLE CRABS.

No. **3895—A.** Socket 1⅜, each... **16c**
No. **3895—B.** Socket 1½, each... **20c**

GEAR IRONS.



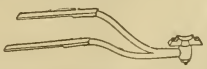
KING BOLTS, WITH COLLAR.

Norway iron, complete with nuts.

No. 1—Light ½-in. bolt, each..... **18c**
No. 2—Medium ⅝-in. bolt, each.... **20c**
No. 3—Heavy ⅝-in. bolt, each..... **25c**

KING BOLT YOKES.

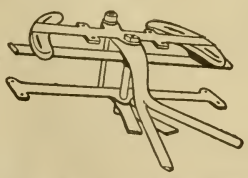
No. 2404—For swedged axle, regular buggy size, 1¼, each.....**10¢**
No. 2405—For plain axle, regular buggy size, 1¼, each.....**10¢**



KING BOLT YOKES AND BRACES.

For 12-in. Brewster circle, regular buggy size.

No. 2425—For swedged axle.....**25¢**
No. 2424—For plain axle.....**25¢**

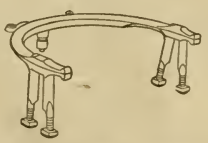


HERBRAND GEAR IRONS.

Wrought Iron.

Suitable for regular one-seated double reach buggies.

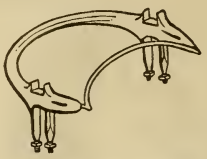
No. 5½—Price per set.....**$1.35**



BREWSTER SLOTTED FIFTH WHEEL.

Wrought Iron.

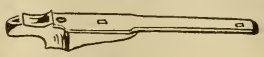
No. 12—⅛ Iron, 12-in. diam., each.**75¢**



No. 2 DERBY FIFTH WHEELS.

Wrought Iron.

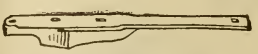
⅝ iron, 12-in. diameter, each..... **55c**
¾ iron, 14-in. diameter, each..... **60c**
⅞ iron, 16-in. diameter, each..... **90c**



REAR PERCH IRONS.
Double Reach Jobs, Swaged Axles.

For square top reaches	Between holes	Size reach	Per pair
No. 253—B	1 3/16	¾	**10¢**

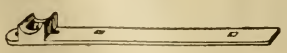
For oval top reaches	Between holes	Size reach	Per pair
No. 255—B	1	¾	**10¢**
No. 255—C	1 3/16	¾	**10¢**
No. 255—H	1⅛	¾	**10¢**



REAR PERCH IRONS.
Double Reach Jobs, Plain Axles.

For square top reaches	Between holes	Size reach	Per pair
No. 252—A	1	¾	**10¢**
No. 252—E	1 3-32	¾	**10¢**
No. 252—B	1 3/16	¾	**10¢**
No. 252—C	1⅛	⅞	**10¢**
No. 252—G	1¼	⅞	**10¢**

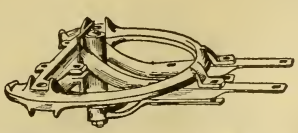
For oval top reaches	Between holes	Size reach	Per pair
No. 254—B	1	¾	**10¢**
No. 254—C	1 3/16	¾	**10¢**



REAR PERCH IRONS.
For Coached Axles, Single Reach.

	Size axle	Size reach	Price each
No. 281—A	1	1	**10¢**
No. 281—B	1⅛	1⅛	**10¢**
No. 281—C	1¼	1¼	**10¢**

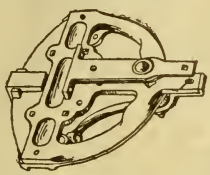
FIFTH WHEELS.



EBERHARD FIFTH WHEELS.

No. **947—C,** is a 10-in. fifth wheel for regular buggy work. Price each without the rear perch heels **80c**

No. **947—D,** is a 12-in. fifth wheel for four-passenger jobs. Price without rear perch heels..... **$1.20**

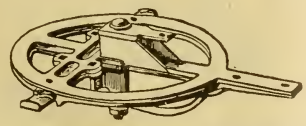


INTERNATIONAL SHORT TURN FIFTH WHEELS.

No. **839—A.** For light work. Length of head block, 10-in. Diameter of circle, 14-in. Price..... **$1.25**

No. **839—D.** For medium work. Length of head block, 12-in. Diameter of circle, 16-in. Price each **1.40**

No. **839—G.** For heavy work. Length of head block, 14-in. Diameter of circle, 18-in. Price.. **1.50**



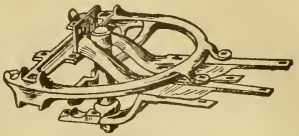
UTILITY FIFTH WHEELS.

Made in three sizes, suitable for light, medium and heavy spring wagons.

No. **890—B.** 11-in. circle, for light work; price each..... **$1.20**

No. **890—H.** 12-in. circle, for medium work; price each..... **1.40**

No. **890—G.** 13-in. circle, for heavy work; price each..... **1.85**

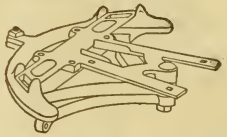


SUMMIT FIFTH WHEELS.

One of the best rear king bolt fifth wheels ever invented.

No. **843—B,** is a 10-in. fifth wheel for regular buggy work, for swedged axles. Price without the rear perch heels..... **80c**

No. **843—F,** is a 10-in. fifth wheel for regular buggy work, for plain axles. Price without the rear perch heels **80c**



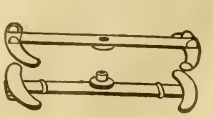
SHORT TURN FIFTH WHEELS.

No. **958—A.** Single reach. Length of head block, 13-in. Diameter of circle, 15-in. Price..... **$1.00**

No. **958—B.** Double reach. Length of head block, 13-in. Diameter of circle, 15-in. Price..... **1.00**

No. **958—C.** Single reach. Length of head block, 15-in. Diameter of circle, 17-in. Price..... **1.30**

No. **958—D.** Double reach. Length of head block, 15-in. Diameter of circle, 17-in. Price..... **1.30**



MALLEABLE ROCKER PLATE.

No. **737—C.** 1¼ bolster, 1¼ axle, 9½ circle; per pair..... **25¢**

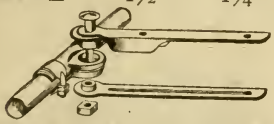
DUPLEX GEAR IRONS.

NOTICE.

The irons shown on this page, for Duplex Gears and Short Turn Duplex Gears, are the same as those used on the gears which we build. They will also interchange with the irons used on Fitch Duplex Gears.

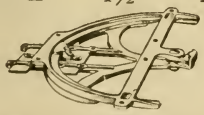
DUPLEX FIFTH WHEELS.

	Axle	Spring	Each
No. 1100—A	1	1¼	75¢
No. 1100—B	1⅛	1¼	75¢
No. 1100—C	1¼	1½	90¢
No. 1100—D	1⅜	1½	90¢
No. 1100—E	1½	1¾	90¢



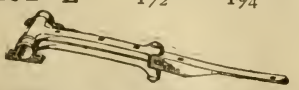
DUPLEX REACH COUPLINGS.

	Axle	Spring	Per set
No. 2100—A	1	1¼	60¢
No. 2100—B	1⅛	1¼	60¢
No. 2100—C	1¼	1½	75¢
No. 2100—D	1⅜	1½	75¢
No. 2100—E	1½	1¾	75¢



SHORT TURN DUPLEX FIFTH WHEELS

	Axle	Spring	Each
No. 1101—A	1	1¼	$1.80
No. 1101—B	1⅛	1¼	1.80
No. 1101—C	1¼	1½	2.10
No. 1101—D	1⅜	1½	2.10
No. 1101—E	1½	1¾	2.10



SHORT TURN DUPLEX REACH COUPLINGS.

	Axle	Spring	Per set
No. 2101—A	1	1¼	$1.25
No. 2101—B	1⅛	1¼	1.25
No. 2101—C	1¼	1½	1.50
No. 2101—D	1⅜	1½	1.50
No. 2101—E	1½	1¾	1.50

FRONT TRUNNIONS.
For Duplex Gears, with Clips.

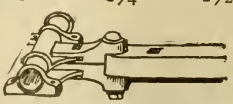
	Axle	Spring	Per pair
No. 6937—A	1	1¼	$0.90
No. 6937—B	1⅛	1¼	.90
No. 6937—C	1¼	1½	1.00
No. 6937—D	1⅜	1½	1.00
No. 6937—E	1½	1¾	1.00

REAR TRUNNIONS.
For Duplex Gears, with Clips.

	Axle	Spring	Per pair
No. 6936—A	1	1¼	80¢
No. 6936—B	1⅛	1¼	80¢
No. 6936—C	1¼	1½	90¢
No. 6936—D	1⅜	1½	90¢
No. 6936—E	1½	1¾	90¢

HANDY WAGON FIFTH WHEELS
Used on Our Handy Wagon Gears.

	Axle	Spring	Each
No. 900—A	1	1⅜	75¢
No. 900—B	1⅛	1½	80¢
No. 900—C	1¼	1½	85¢



HANDY REACH COUPLINGS.

	Axle	Spring	Per set
No. 901—A	1	1⅜	50¢
No. 901—B	1⅛	1½	55¢
No. 901—C	1¼	1½	60¢

HANDY SPRING COUPLINGS.

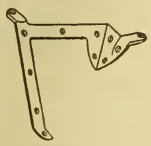
	Axle	Spring	Per pair
No. 6925—A	1	1⅜	50¢
No. 6925—B	1⅛	1½	50¢
No. 6925—C	1¼	1½	60¢

SEAT IRONS.

SEAT CORNER IRONS.

Has 57 degrees bevel.

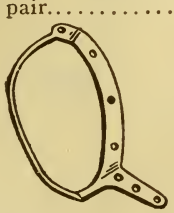
No. 4005—2⅜ long, in pairs right and left, per pair.....**5¢**



SEAT CORNER IRONS.

No. 4080—A. Fits our common panel seat No. 10. Per pair..... **15c**

No. 4080—C. Fits our seat No. 250. Per pair..... **15c**



SEAT HANDLES.

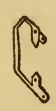
No. 4245—A. Fits our common panel seat No. 10. Per pair.....**15¢**

No. 4245—G. Fits our seat No. 250. Per pair .....**15¢**

FRONT SEAT IRONS.

No. 4130—A. Fits our common panel seat No. 10. Per pair.....**10c**

No. 4130—G. Fits our seat No. 250. Per pair.....**15c**

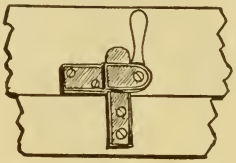


SEAT HANDLES.

No. 4235—For 5-in. panel, pair...**10¢**

EXPRESS WAGON HANDLES.

No. 4330—A. Entire length 7½, price per pair .....**12¢**

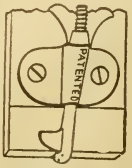


SEAT FASTENERS.

No. 4835—Suitable for bodies made without inside rail, eccentric pattern, per set.....**10¢**

SEAT FASTENERS.

No. 4833—Made for 6-in. seat risers, ⅞ wide, price per pair, complete .....**20¢**

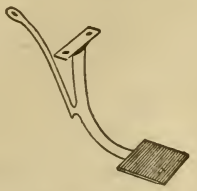


SEAT FASTENERS.

No. 1000—Scudder seat fasteners, to be used where bodies have inside rail, price per pair.....**10¢**

VEHICLE STEPS.

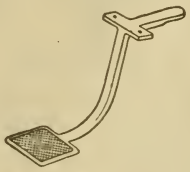
We present here a line of the best Malleable Iron Steps, in the most popular styles, shapes and sizes.



STANDARD STEPS.

For Buggies and Wagons.

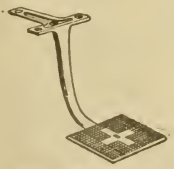
	Drop	Project	Pair
No. **1903**—A	6½	6¾	**35¢**
No. **1903**—B	8	7½	**40¢**
No. **1903**—C	9¾	6½	**45¢**



BUGGY STEPS.

Plain Square Pad.

No. **1908**—A. 6-in. drop; 5-in. project; 3x3⅝ pad; per pair.....**25¢**



BUGGY STEPS.

A new and very neat design.

No. **1914**—C. 6-in. drop; 5½-in. project; 3½x4 pad; per pair.....**25¢**

BUGGY STEPS.

The popular Oval Pad.

No. **3554**—A. 5½-in. drop; 5¾-in. project; 3½x4½ pad; per pair....**30¢**

RUBBER PAD STEPS.

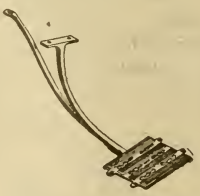
The pad is square, rubber covered.

No. **3101**—A. 6-in. drop; 6-in. project; pad 3½x4; per pair.....**70c**

RUBBER PAD STEPS.

The pad is oval, rubber covered.

No. **3100**—A. 6-in. drop; 6-in. project; oval pad; per pair.....**65c**



SURREY STEPS.

A standard, adjustable step, which fits nearly all surreys.

No. **1961**—B. 8-in. drop; pad 6x8; projection, adjustable from 17½ to 19½-in.; per pair.....**$1.15**

BRANCH BUGGY STEP.

No. **1930**—F. Oval pad; 6½-in. drop; 6-in. projection; per pair...**30¢**

STEPS, END GATE IRONS, HINGES, ETC.

BODY STEPS.

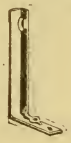
No. **1833**—4¼ drop, 4¾ projection, 3½x4 pad; per pair.....**30¢**

BODY STEPS.

No. **1753**—½-in. drop, 3½x3⅜ pad; price per pair.....**20¢**

END GATE IRONS.

No. **5695**—To attach to body, per pair **3c**



END GATE IRONS.

No. **5587**—A. 6-in. high over all 3¾ foot, price per pair.....**13¢**

END GATE IRONS.

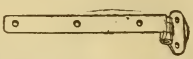
No. **5691**—Used with 5690, pair....**2c**

END GATE IRONS.

No. **5690**—Used ith 5691, pair....**5¢**

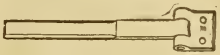
NOTICE.

For a complete set, order one pair No. 5690; one pair 5691; and one pair of either 5587 or 5695; also a pair of hinges as may be wanted.



END GATE HINGES.

No. **5820**—C. Hinges for 8-in. panel, price per pair.....**15¢**



END GATE HINGES.

No. **5810**—A. Hinges for 9-in. panel, price per pair.....**20¢**

No. **5810**—B. Hinges for 13-in. panel, price per pair.....**25¢**

END GATE HINGES.

No. **5792**—D. Long part 14½; short part 4-in.; 1¼ wide; pair.. **30c**

END GATE HINGE STAPLES.

No. **5776**—C. For $\frac{7}{16}$ rod, 3-in. long over all; price each.....**2¢**

END GATE FASTENERS.

No. **5720**—For 1-in. thick end gate, made to fit over box strap; per pair **10c**

END GATE FASTENERS.

Crucible Steel Springs.

No. **5697**—D. For ⅞ panel, pair....**25¢**

No. **5697**—E. For 1-in. panel, pair.**27¢**

BOW IRONS.

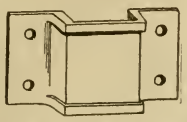
No. **6055**—F. To fit bows 1½x¾; price each .....**1¢**

MALLEABLE IRON HARDWARE.

BOX ROD HANDLE NUTS.

Not Threaded.

No. **5910**—B. For ⅜ rod, each....**3¢**



TRUCK STAKE IRONS.

No. **5995**—C. For 1½x3 stake, 2¾ deep; price each.....**15c**

MALLEABLE IRON STAKE RINGS.

No. **5980**—E. 1-in. stake, 1⅝ diameter; price each.....**2¢**

No. **5980**—F. 1-in. stake, 2-in. diameter; price each.....**3¢**

FLARE BOARD IRONS.

Threaded.

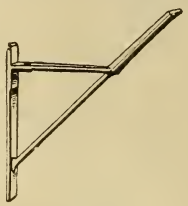
No. **6102**—B. Made for 8-in. panel, 4x½-in. shank; make for 6-in. flare board; price each.....**25¢**

JOINTED LAZY BACK IRONS.

No. **5352**—15-in. high over all; height of knuckle, 3½-in.; price per pair .....**40¢**

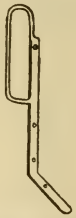
EXPRESS WAGON BODY BRACES.

No. **6195**—A. 10¾ long, 3½ projection to end of foot; each.....**10¢**



TOE BOARD BRACKETS.

No. **6086**—A. Taking 12-in. footboard and 8½ toe board; pair.....**90c**



BODY IRONS.

No. **5191**—A. For wood dash on bracket front bodies; length of flat part, 14-in., with 6-in. foot; pair..**25c**

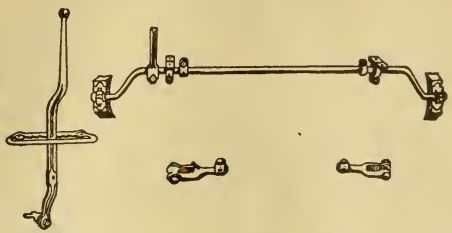
HANGER AND TRACK SUPPORT.

For Sliding Milk Wagon or Mail Wagon Doors.

No. **6110**—Brackets for above. Price each .....**3¢**

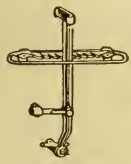
No. **6112**—Hangers made to receive ⅞ rail. Per pair.....**25¢**

MALLEABLE IRON HARDWARE.



SPRING WAGON BRAKES COMPLETE.

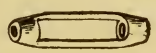
Combination No. 80—C, made in both wide and narrow track. In ordering be sure to state which is wanted. This combination includes 1-in. brake roller with wood friction blocks; 28-in. hand lever; 13½-in. ratchet; $\frac{7}{16}$ turnbuckle; brake shoe 2⅛-in. wide. Price complete.....**$2.70**



FOOT LEVERS.

No. 6290—B. Lever 14½ long, ratchet 12½ long; price.....**45¢**

This foot lever may be used in place of the hand lever in Combination brake No. 80—C.



TURNBUCKLES.

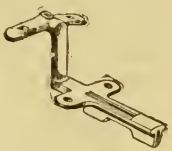
With wrought stub ends, threaded; especially suitable for brakes.

No. 6382—C. ½-in. rod, each....**25¢**

No. 6382—D. ⅝-in. rod, each....**30¢**

BRAKE SHOES.

No. 6366—C. 4¾ deep, ⅞ flange for 4-in. block; price each.....**14¢**

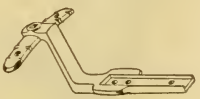


BODY HANGERS.

For three-spring gears.

No. 6581—C. For 1¼ spring, 2-in. drop; price per pair..... 45c

No. 6581—J. For 1½ spring, 2-in. drop; price per pair.....**65¢**



BODY HANGERS.

For three-spring gears.

No. 6580—C. For 1¼ spring, 2¼ drop; per pair..... 40c

No. 6580—B. For 1½ spring, 2¼ drop; per pair..... 45c

THUMB NUTS.

No. 5490—A.	Size ¼, per 100..	**$0.50**
No. 5490—B.	Size $\frac{5}{16}$, per 100..	**1.00**
No. 5490—C.	Size ⅜, per 100..	**1.25**

MALLEABLE IRON HARDWARE.

RIM BANDS.

These are suitable for wood hub or Shell Band wheels, but are not needed on our Sarven wheels, which already have solid extension point bands.

All are 1¾ deep, and the diameter given is measured inside of large end.

Following sizes carried in stock:

No. 7425—A. 2 -in.
No. 7425—B. 2⅛-in.
No. 7425—C. 2¼-in.
No. 7425—D. 2⅜-in.
No. 7425—E. 2½-in.

Any of the above sizes in plain malleable iron, per set.....**20¢**

Any of the above sizes, nickel-plated, per set.....**35¢**

SPRING SHACKLES.

Barrel pattern.

No. 6765—A. 1¼ x 1¼, with ⅜ holes, price each.....**3¢**
No. 6765—D. 1½ x 1½, with ⅜ holes, price each.....**4¢**

SPRING SHACKLES.

Links for above barrel shackels.

No. 6775—B. 1¼, per pair.....**3¢**
No. 6775—D. 1½, per pair.....**4¢**

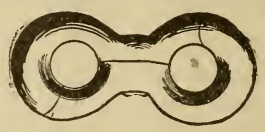
SPRING SHACKELS.

Cut shows one pair. Loose scroll pattern.

No. 6780—J. 1½ between ears, for ⅜ bolt; price per pair..... 7c
No. 6780—F. 1¾ between ears, for ½-in. bolt; price per pair..... 11c
No. 6780—A. 2-in. between ears, for ½-in. bolt; price per pair..... 14c

SWIVELS.

No. 7710—B. $\frac{5}{16}$ eye, per doz.... **40c**
No. 7710—D. ⅜ eye, per doz.... **50c**



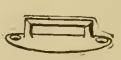
CHAIN REPAIR LINKS.

Strong and handy.

No. 7650—A. ¼, per doz..... **25c**
No. 7650—B. $\frac{5}{16}$, per doz..... **30c**
No. 7650—C. ⅜, per doz..... **35c**

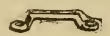
BODY SAFETY LOOPS.

No. 6427—C. 1-in., per 100..... **$1.25**



NECK YOKE LOOPS—DRILLED.

No. 6405—A. ⅞ loop, per 100. **$1.50**
No. 6405—B. 1⅛ loop, per 100. **2.50**



CHECK LOOPS.

No. 6400—B. 1-in., price per 100.**50¢**
No. 6400—D. 1¼, price per 100..**75¢**

SHIFTING RAIL FERRULES.

No. 5510—AA. ⅜ hole, per 100.. **50c**

SHIFTING RAIL CLIPS.

No. 5515—Regular size, each..... **1c**

WRENCHES.

MALLEABLE WRENCHES.

	Size	Each
No. 7320—A.	¾-in.	4¢
No. 7320—B.	⅞-in.	5¢
No. 7320—C.	1 -in.	5¢
No. 7320—D.	1⅛-in.	6¢
No. 7320—E.	1¼-in.	7¢

IDEAL WRENCHES.

No. 7321—B. ⅞-in., price each.. 8c
No. 7321—D. 1 -in., price each.. 8c

DOUBLE END RATCHET WRENCHES.

Made especially for carriage work, such as taking off and putting on tire bolts. No wrench ever made has given such universal satisfaction as has this. Every shop should have several.

No. 1—6-in. handle for $\frac{3}{16}$ and ¼ tire bolts; each.....65¢

No. 2—7-in. handle, for $\frac{5}{16}$ and ⅜ carriage bolts; each.....80¢

HEAVY WRENCHES.

No. 7330—D. Size 1½, each.....17¢
No. 7330—F. Size 1¾, each.....20¢

SOCKET WRENCHES.

	Size of bolts	Each
No. 7385—A.	$\frac{3}{16}$-in.	5¢
No. 7385—B.	¼-in.	5¢
No. 7385—C.	$\frac{5}{16}$-in.	5¢
No. 7385—D.	⅜-in.	7¢

FELLOE PLATES.

Sizes here given refer to the width of felloe which plates will fit.

No. 2165—A. Size ¾-in., lb....4½¢
No. 2165—B. Size ⅞-in., lb....4½¢
No. 2165—C. Size 1 -in., lb....4½¢
No. 2165—D. Size 1⅛-in., lb....4½¢
No. 2165—E. Size 1¼-in., lb....4½¢
No. 2165—F. Size 1⅜-in., lb....4½¢
No. 2165—G. Size 1½-in., lb....4½¢
No. 2165—H. Size 1¾-in., lb....4½¢

GENERAL PURPOSE WRENCH.

Finished. Drop Forged Steel. Longer and thinner than the ordinary S or Angle Wrench. No shop can afford to be without them.

	Size Bolt	Openings Finished	Extreme Length	List Price Each
No. 300	$\frac{3}{16}$ & ¼	⅜ & ½	6¼	10c
No. 301	¼ & $\frac{5}{16}$	½ & ⅝	7⅛	15c
No. 302	$\frac{5}{16}$ & ⅜	⅝ & ¾	8¼	20c
No. 303	⅜ & $\frac{7}{16}$	¾ & ⅞	9¼	25c
No. 304	$\frac{7}{16}$ & ½	⅞ & 1-in.	10⅜	30c

Price, per full set, one wrench of each size..... 80c

MALLEABLE IRON HARDWARE.

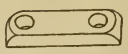
SPRING CHAIRS.

	Size Spring	Size Axle	Price Each
No. 6615—A	1¼	1	7¢
No. 6615—B	1¼	1⅛	8¢
No. 6615—C	1⅜	1⅛	8¢
No. 6615—E	1½	1¼	10¢
No. 6615—F	1¾	1⅜	15¢
No. 6615—J	1½	1⅜	14¢

IRON AXLE BLOCKS.

To support wooden spring chairs.

	Size Spring	Size Axle	Price Each
No. 6637—A	1¼	1⅛	6c
No. 6637—B	1½	1⅛	7c
No. 6637—D	1½	1¼	7c
No. 6637—GX	1¾	1¼	8c
No. 6637—E	1½	1⅜	8c
No. 6637—G	1¾	1½	10c
No. 6637—R	2	1½	12c



CLIP YOKES FOR PLAIN AXLES.

Size ¾, with $\frac{5}{16}$ holes, per lb..... 5c
Size ⅞, with $\frac{5}{16}$ holes, per lb..... 5c
Size 1, with $\frac{5}{16}$ holes, per lb..... 5c
Size 1⅛, with $\frac{5}{16}$ holes, per lb..... 5c
Size 1¼, with $\frac{5}{16}$ holes, per lb..... 5c
Size 1⅜, with $\frac{5}{16}$ holes, per lb..... 5c
Size 1½, with $\frac{5}{16}$ holes, per lb..... 5c
Size 1, with ⅜ holes, per lb..... 5c
Size 1¼, with ⅜ holes, per lb..... 5c
Size 1½, with ⅜ holes, per lb..... 5c
Size 1¾, with ⅜ holes, per lb..... 5c

CLIP YOKES FOR SWEDGED AXLES.

Size ¾, with $\frac{5}{16}$ holes, per lb.....6¢
Size 1, with $\frac{5}{16}$ holes, per lb.....6¢
Size 1⅛, with $\frac{5}{16}$ holes, per lb.....6¢
Size 1¼, with $\frac{5}{16}$ holes, per lb.....6¢

HEAVY PATTERN CLIP YOKES.

	Size between holes	Price Each
No. 7126—A	1½	2¢
No. 7126—C	1¾	3¢
No. 7126—E	2	4¢

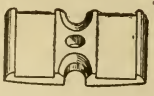
SPRING CLIP TIES AND PLATES.

	Size Spring	Size Axle	Price Each
No. 6650—A	1¼	1	4¢
No. 6650—B	1¼	1⅛	4¢
No. 6650—E	1½	1¼	5¢

AXLE CLIP TIES AND PLATES.

Usually used with No. 6650.

	Size Spring	Size Axle	Price Each
No. 6667—A	1¼	1	3c
No. 6667—B	1¼	1⅛	3c
No. 6667—E	1½	1¼	4¢



CLIP TIE PLATES.

For holding heavy pattern clip yokes in place.

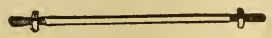
	Size Spring	Size Axle	Price Each
No. 6648—G	1½	1¼	3c
No. 6648—GX	1¾	1¼	3¢
No. 6648—H	1½	1⅜	3¢
No. 6648—J	1¾	1⅜	4c
No. 6648—L	1¾	1½	4c
No. 6648—M	2	1½	5¢

BOX CLIPS.

To be used with springs hung under the axle.

	Size Spring	Size Axle	Price Each
No. 6612—A	1¼	1	10c
No. 6612—C	1¼	1⅛	10c
No. 6612—D	1½	1¼	10c
No. 6612—F	1¾	1⅜	13c
No. 6612—G	2	1½	15¢

MALLEABLE IRON HARDWARE.



SKEIN CLIPS.

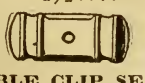
Clips made of round iron are rapidly taking the place of clips with square corners, in all kinds of gear work. Their use is made possible by the clip seats shown on this page. They have the advantage over square cornered clips, of being stronger and cheaper, and any blacksmith can easily make any desired size by bending and shaping a piece of round iron which has threads and nuts on both ends. We sell for this purpose, straight pieces of round iron, with threads and nuts on both ends, in the following sizes and lengths:

⅜x10-in., price each	3 ¢
⅜x12-in., price each	3 ¢
⅜x14-in., price each	3½¢
7/16x10-in., price each	3½¢
7/16x12-in., price each	4 ¢
7/16x14-in., price each	4 ¢
½x14-in., price each	5 ¢
½x16-in., price each	6 ¢
½x18-in., price each	6 ¢
⅝x16-in., price each	9 ¢
⅝x18-in., price each	10 ¢
⅝x20-in., price each	10 ¢

SINGLE CLIP SEATS.

For use with round iron clips, being placed on under the side of axle.

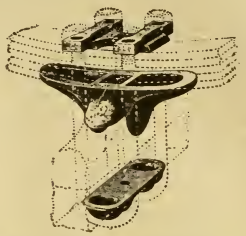
	Size of axle	Per doz.
No. 6595—A	1-in.	10¢
No. 6595—B	1⅛	10¢
No. 6595—E	1¼	12¢
No. 6595—F	1⅜	15¢
No. 6595—G	1½	20¢



DOUBLE CLIP SEATS.

For use with round iron clips.

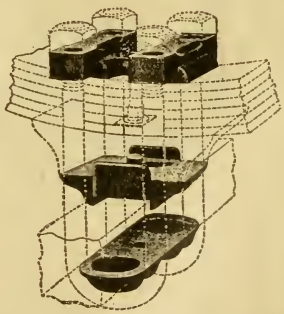
	Size Spring	Size Axle	Price Doz.
No. 6668—A	1¼	1	15c
No. 6668—B	1¼	1⅛	15c
No. 6668—D	1½	1⅛	15c
No. 6668—G	1½	1¼	18c
No. 6668—J	1¾	1⅜	24c
No. 6668—L	1¾	1½	30c
No. 6668—M	2	1½	30c



COMBINATION SETS OF IRONS.

For attaching springs to the axles. Wired together in bunches. Complete, except the clips. This style to be used without wooden blocks.

Stock Number	Size Spring	Size Axle	Per bunch
No. 6616—A	1¼	1	12c
No. 6616—B	1¼	1⅛	12c
No. 6616—G	1½	1¼	16c
No. 6616—H	1½	1⅜	18c



COMBINATION SETS OF IRONS.

For attaching springs to the axles. Wired together in bunches. Complete, except the clips. This style used with wooden blocks. In putting up a gear, one bunch is required for every spring used.

Stock Number	Size Spring	Size Axle	Per bunch
No. 6622—B	1¼	1⅛	10¢
No. 6622—G	1½	1¼	15¢
No. 6622—GX	1¾	1¼	15¢
No. 6622—H	1½	1⅜	15¢
No. 6622—J	1¾	1⅜	18¢
No. 6622—L	1¾	1½	20¢
No. 6622—M	2	1½	25¢

We handle only good reliable Carriage Bolts. The threads are perfect. The nuts fit well. They are good and reliable. The prices given below are our net prices for 100 bolts, with nuts. No packages broken.

$\frac{3}{16}$-INCH BOLTS. (100 in a package.)

1 x$\frac{3}{16}$, per 100	24c
1¼x$\frac{3}{16}$, per 100	24c
1½x$\frac{3}{16}$, per 100	24c
1¾x$\frac{3}{16}$, per 100	26c
2 x$\frac{3}{16}$, per 100	26c
2¼x$\frac{3}{16}$, per 100	28c
2½x$\frac{3}{16}$, per 100	29c
2¾x$\frac{3}{16}$, per 100	30c
3 x$\frac{3}{16}$, per 100	31c

¼-INCH BOLTS. (100 in a package.)

1 x¼, per 100	24c
1¼x¼, per 100	24c
1½x¼, per 100	24c
1¾x¼, per 100	26c
2 x¼, per 100	26c
2¼x¼, per 100	28c
2½x¼, per 100	29c
2¾x¼, per 100	30c
3 x¼, per 100	31c
3¼x¼, per 100	33c
3½x¼, per 100	33c
3¾x¼, per 100	35c
4 x¼, per 100	36c
4¼x¼, per 100	38c
4½x¼, per 100	38c
4¾x¼, per 100	40c
5 x¼, per 100	40c

$\frac{5}{16}$-INCH BOLTS. (50 in a package.)

1 x$\frac{5}{16}$, per 100	33c
1¼x$\frac{5}{16}$, per 100	33c
1½x$\frac{5}{16}$, per 100	33c
1¾x$\frac{5}{16}$, per 100	36c
2 x$\frac{5}{16}$, per 100	36c
2¼x$\frac{5}{16}$, per 100	39c
2½x$\frac{5}{16}$, per 100	39c
2¾x$\frac{5}{16}$, per 100	42c
3 x$\frac{5}{16}$, per 100	42c
3¼x$\frac{5}{16}$, per 100	45c
3½x$\frac{5}{16}$, per 100	45c
3¾x$\frac{5}{16}$, per 100	48c
4 x$\frac{5}{16}$, per 100	48c
4¼x$\frac{5}{16}$, per 100	50c
4½x$\frac{5}{16}$, per 100	50c
4¾x$\frac{5}{16}$, per 100	53c
5 x$\frac{5}{16}$, per 100	53c
5½x$\frac{5}{16}$, per 100	56c
6 x$\frac{5}{16}$, per 100	59c
6½x$\frac{5}{16}$, per 100	62c
7 x$\frac{5}{16}$, per 100	65c
7½x$\frac{5}{16}$, per 100	67c
8 x$\frac{5}{16}$, per 100	70c
8½x$\frac{5}{16}$, per 100	73c

⅜-INCH BOLTS.

50 in a package.

1 x⅜, per 100	$0.45
1¼x⅜, per 100	.45
1½x⅜, per 100	.45
1¾x⅜, per 100	.49
2 x⅜, per 100	.49
2¼x⅜, per 100	.53
2½x⅜, per 100	.53
2¾x⅜, per 100	.56
3 x⅜, per 100	.56
3¼x⅜, per 100	.60
3½x⅜, per 100	.60
3¾x⅜, per 100	.64
4 x⅜, per 100	.64
4¼x⅜, per 100	.68
4½x⅜, per 100	.68
4¾x⅜, per 100	.72
5 x⅜, per 100	.72
5½x⅜, per 100	.76
6 x⅜, per 100	.79
6½x⅜, per 100	1.05
7 x⅜, per 100	1.09
7½x⅜, per 100	1.14
8 x⅜, per 100	1.19
8½x⅜, per 100	1.24
9 x⅜, per 100	1.29

½-INCH BOLTS.

50 in a package.

2½x½, per 100	$0.97
3 x½, per 100	1.05
3½x½, per 100	1.14
4 x½, per 100	1.22
4½x½, per 100	1.31
5 x½, per 100	1.39
5½x½, per 100	1.48
6 x½, per 100	1.56
6½x½, per 100	1.64
7 x½, per 100	1.73
7½x½, per 100	1.81
8 x½, per 100	1.89
8½x½, per 100	1.97
9 x½, per 100	2.06
9½x½, per 100	2.14
10 x½, per 100	2.23
11 x½, per 100	2.40
12 x½, per 100	2.56
13 x½, per 100	2.73
14 x½, per 100	2.90
15 x½, per 100	3.06

TIRE BOLTS.

We handle fluted tire bolts exclusively, as our customers find that the ribs which are formed on the bolt, just below the head, prevent the bolt from turning while the nut is being put on.

Every thread and nut is perfect. No better tire bolts can be bought at any price.

100 in a Paper.

1½x⅛, per 100	11c
1½x$\frac{3}{16}$, per 100	11c
1¾x$\frac{3}{16}$, per 100	12c
2 x$\frac{3}{16}$, per 100	13c
2¼x$\frac{3}{16}$, per 100	14c
2½x$\frac{3}{16}$, per 100	15c
2¾x$\frac{3}{16}$, per 100	16c
3 x$\frac{3}{16}$, per 100	17c
1¾x¼, per 100	19c
2 x¼, per 100	20c
2¼x¼, per 100	21c
2½x¼, per 100	22c
2¾x¼, per 100	23c
3 x¼, per 100	24c
3½x¼, per 100	25c
2 x$\frac{5}{16}$, per 100	27c
2½x$\frac{5}{16}$, per 100	30c
3 x$\frac{5}{16}$, per 100	32c
3½x$\frac{5}{16}$, per 100	35c

1000 in a Wooden Box.

1½x$\frac{3}{16}$, per 1000	$1.05
1¾x$\frac{3}{16}$, per 1000	1.10
2 x$\frac{3}{16}$, per 1000	1.20

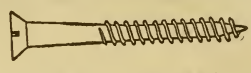
SPRING COTTERS.

For the convenience of the trade, we put up spring cotters in assorted trade packages, containing ten pieces each of ten spring cotters of different sizes, as per the following list:

3/32 x ¾ inches.	$\frac{3}{16}$ x 1½ inches.
3/32 x 1 inches.	¼ x 1¼ inches.
⅛ x 1 inches.	¼ x 2 inches.
⅛ x 1¼ inches.	$\frac{5}{16}$ x 2 inches.
$\frac{3}{16}$ x 1¼ inches.	$\frac{5}{16}$ x 2½ inches.

We do not break packages.

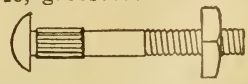
Price per package, 100 cotters.....**29¢**



WOOD SCREWS.

Standard make, flat head bright wood screws. One gross in a paper.

⅝, No. 7, gross	9¢
⅝, No. 8, gross	10¢
⅝, No. 9, gross	10¢
⅝, No. 10, gross	11¢
¾, No. 7, gross	10¢
¾, No. 8, gross	10¢
¾, No. 9, gross	11¢
¾, No. 10, gross	11¢
¾, No. 11, gross	12¢
⅞, No. 8, gross	11¢
⅞, No. 9, gross	11¢
⅞, No. 10, gross	12¢
⅞, No. 11, gross	12¢
⅞, No. 12, gross	13¢
1, No. 8, gross	11¢
1, No. 9, gross	12¢
1, No. 10, gross	13¢
1, No. 11, gross	13¢
1, No. 12, gross	14¢
1¼, No. 10, gross	14¢
1¼, No. 11, gross	15¢
1¼, No. 12, gross	16¢
1½, No. 11, gross	16¢
1½, No. 12, gross	17¢
1½, No. 13, gross	19¢
1¾, No. 13, gross	21¢
1¾, No. 14, gross	24¢
2, No. 13, gross	23¢
2, No. 14, gross	26¢
2½, No. 14, gross	31¢
2½, No. 15, gross	35¢



NORTH CARRIAGE BOLTS.

Corrugated neck, instead of square.

3/16 or ¼ Bolts, 100 in a Package.

1¼ x ¼ or $\frac{3}{16}$, per 100	30¢
1½ x ¼ or $\frac{3}{16}$, per 100	30¢
1¾ x ¼ or $\frac{3}{16}$, per 100	31¢
2 x ¼ or $\frac{3}{16}$, per 100	32¢
2¼x¼, per 100	33¢
2½x¼, per 100	35¢
3 x¼, per 100	37¢

$\frac{5}{16}$ Bolts, 50 in a Package.

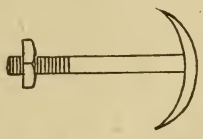
2 x$\frac{5}{16}$, per 100	46¢
2½x$\frac{5}{16}$, per 100	49¢
3 x$\frac{5}{16}$, per 100	53¢
3½x$\frac{5}{16}$, per 100	56¢
4 x$\frac{5}{16}$, per 100	60¢

FANCY HEAD BOLTS.

TEE HEAD SHAFT BOLTS.
Genuine Norway Iron.

1¼x¼, per 100	$1.00
1½x¼, per 100	1.05
1¾x¼, per 100	1.10
2 x¼, per 100	1.15

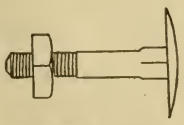
Less than full package of 100 bolts, price each, any size ..... 1½¢



TEE HEAD WHIFFLETREE BOLTS.
Genuine Norway Iron.

3½x$\frac{5}{16}$, per 100	$1.75
4 x$\frac{5}{16}$, per 100	1.85
4½x$\frac{5}{16}$, per 100	1.95
3 x⅜, per 100	2.05
3½x⅜, per 100	2.15
4 x⅜, per 100	2.25
4½x⅜, per 100	2.35

Less than a full package of 50 bolts, price each, any size 2½c



STEP BOLTS.
Large Flat Head, Norway Iron.

¾x$\frac{3}{16}$, per 100	$1.00
1 x$\frac{3}{16}$, per 100	1.00
1¼x$\frac{3}{16}$, per 100	1.05
¾x¼, per 100	1.00
1 x¼, per 100	1.00
1¼x¼, per 100	1.05
1½x¼, per 100	1.05
1¾x¼, per 100	1.10
2 x¼, per 100	1.15

Less than full packages of 100 bolts, price each, any size ..... 1½¢

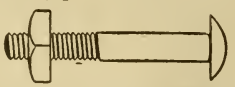
FORGED SHAFT COUPLING BOLTS.

2 x$\frac{5}{16}$, per 100	$0.75
2¼x$\frac{5}{16}$, per 100	.75
2½x$\frac{5}{16}$, per 100	.80
2¼x⅜, per 100	.95
2½x⅜, per 100	1.00
2¼x$\frac{7}{16}$, per 100	1.10
2½x$\frac{7}{16}$, per 100	1.15
2¾x$\frac{7}{16}$, per 100	1.20

Less than full packages of 50 bolts, price each, any size ..... 1½¢

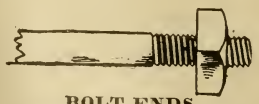
BASTARD HEAD BOLTS.
Norway Iron. Small Flat Head.
Used Especially on Seat Work.

1¼x$\frac{3}{16}$, per 100 ..... $1.15
Less than 100, price each ..... 1½¢



ELLIPTIC SPRING BOLTS.
With Large Round Heads.

2¼x$\frac{5}{16}$, common size for 1¼ and 1⅜ springs, price each ..... 2¢
2½x$\frac{5}{16}$, common size for 1½ springs, price each ..... 2¢
2¾x⅜, common size for 1¾ springs, price each ..... 2¢
3x⅜, common size for 2-in. springs, price each ..... 2¢



BOLT ENDS.
Threaded, with Nuts.

	Size	Length	
No. 4	¾	10-in., each	7¢
No. 6	⅞	11-in., each	10¢
No. 8	1-in.	12-in., each	12¢
No. 10	1¼	14-in., each	20¢

SARVEN WHEEL RIVETS.

No. 1.	1⅝x$\frac{7}{32}$, per lb	6c
No. 3.	1¾x$\frac{7}{32}$, per lb	6c
No. 9.	1⅞x¼, per lb	6c
No. 13.	2-in. x 9/32, per lb	6c

NUTS, WASHERS, RIVETS, ETC.

WROUGHT WASHERS.

Sizes given below are size of bolt that washer will fit.

3/16, per pound.....9¢
1/4, per pound.....8¢
5/16, per pound.....7¢
3/8, per pound.....6¢
7/16, per pound.....5¢
1/2, per pound.....5¢
9/16, per pound.....5¢
5/8, per pound.....5¢
3/4, per pound.....5¢
7/8, per pound.....5¢
1, per pound.....5¢

THIN STEEL TIRE BOLT WASHERS.

Conveniently put up in one-pound packages. Especially for tire bolt work.

For 3/16 bolts, per pound.....12¢
For 1/4 bolts, per pound.....10¢

RIVETING BURRS.

Conveniently put up in one-pound packages. Made the exact size to fit rivets.

For 3/16 rivets, per pound.....15¢
For 1/4 rivets, per pound.....12¢

WAGON BOX RIVETS.

Flat head rivets carried in stock in 1/4 and 3/16-in. Oval head rivets carried in stock only in 1/4-in.

1¼x¼, per pound.....5c
1½x¼, per pound.....5c
1¾x¼, per pound.....5c
2 x¼, per pound.....5c
2¼x¼, per pound.....5c
2½x¼, per pound.....5c
2¾x¼, per pound.....5c
3 x¼, per pound.....5c
3¼x¼, per pound.....5c
3½x¼, per pound.....5c
4 x¼, per pound.....5c
1 x3/16, per pound.....5c
1¼x3/16, per pound.....5c
1½x3/16, per pound.....5c
1¾x3/16, per pound.....5c
2 x3/16, per pound.....5c
2½x3/16, per pound.....5c
3 x3/16, per pound.....5c

SARVEN WHEEL RIVETS.

See list of sizes on page 120.

BOW SOCKET RIVETS.

Standard Sizes. Price, per pound...10¢

SQUARE BLANK NUTS.

Sizes given below are sizes of bolts which nuts will fit.

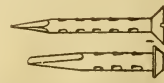
1/4, per pound.....10¢
5/16, per pound.....9¢
3/8, per pound.....8¢
7/16, per pound.....7¢
1/2, per pound.....6¢
9/16, per pound.....6¢
5/8, per pound.....6¢
3/4, per pound.....5¢
7/8, per pound.....5¢
1, per pound.....5¢

SQUARE THREADED NUTS.

1/4, per pound.....12¢
5/16, per pound.....10¢
3/8, per pound.....9¢
7/16, per pound.....8¢
1/2, per pound.....7¢
9/16, per pound.....6¢
5/8, per pound.....6¢
3/4, per pound.....6¢
7/8, per pound.....6¢
1, per pound.....6¢

HEXAGON BLANK NUTS.

1/4, per pound.....16¢
5/16, per pound.....14¢
3/8, per pound.....10¢
7/16, per pound.....9¢
1/2, per pound.....8¢
9/16, per pound.....8¢
5/8, per pound.....7¢
3/4, per pound.....6¢
7/8, per pound.....6¢
1, per pound.....6¢



WROUGHT IRON WAGON NAILS.

Made in two styles of heads, as shown in cut. Imitation screw head and steeple head. One size only, 1½x3/16.

Per pound.....10¢

SPRINGS.

STANDARD PLATFORM SPRINGS.

This style of platform spring requires four side springs and two cross springs to make a full set, with the cross springs two inches longer, and one leaf heavier, than the side springs. When ordering always be sure to say how many side springs and how many cross springs are wanted. This is important, even when full sets or half sets are ordered.

No. 15 SIDE SPRINGS, PLAIN.

Bolt in these springs is 1½-in. out of center.

1¼ x 3 leaf x 38, price each.....	$0.50
1¼ x 4 leaf x 40, price each.....	.65
1¼ x 4 leaf x 38, price each.....	.60
1½ x 4 leaf x 38, price each.....	.80
1½ x 4 leaf x 40, price each.....	.85
1½ x 5 leaf x 38, price each.....	.95
1½ x 5 leaf x 40, price each.....	1.00
1¾ x 5 leaf x 38, price each.....	1.10
1¾ x 5 leaf x 40, price each.....	1.15
1¾ x 6 leaf x 38, price each.....	1.20
1¾ x 6 leaf x 40, price each.....	1.30
1¾ x 7 leaf x 38, price each.....	1.35
1¾ x 7 leaf x 40, price each.....	1.40
2 x 7 leaf x 40, price each.....	1.75

No. 15 SIDE SPRINGS, RIBBED.

1¾ x 6 leaf x 38, price each.....	$1.30
1¾ x 6 leaf x 40, price each.....	1.40
2 x 7 leaf x 40, price each.....	1.85

No. 16 CROSS SPRINGS, PLAIN.

Bolt in these springs is in center.

1¼ x 4 leaf x 40, price each.....	$0.80
1¼ x 5 leaf x 42, price each.....	1.00
1¼ x 5 leaf x 40, price each.....	.95
1½ x 5 leaf x 40, price each.....	1.10
1½ x 5 leaf x 42, price each.....	1.15
1½ x 6 leaf x 40, price each.....	1.25
1½ x 6 leaf x 42, price each.....	1.30
1¾ x 6 leaf x 40, price each.....	1.40
1¾ x 6 leaf x 42, price each.....	1.60
1¾ x 7 leaf x 40, price each.....	1.55
1¾ x 7 leaf x 42, price each.....	1.75
1¾ x 8 leaf x 40, price each.....	1.80
1¾ x 8 leaf x 42, price each.....	1.85
2 x 8 leaf x 42, price each.....	2.25

No. 16 CROSS SPRINGS, RIBBED.

1¾ x 7 leaf x 40, price each.....	$1.70
1¾ x 7 leaf x 42, price each.....	1.85
2 x 8 leaf x 42, price each.....	2.40

DUPLEX SPRINGS.

These are the same springs as are used on the Duplex gears listed on pages 27 and 29.

1¼ x 3 leaf x 42, each.....	$0.80
1¼ x 4 leaf x 42, each.....	.90
1¼ x 5 leaf x 42, each.....	1.00
1½ x 4 leaf x 42, each.....	1.20
1½ x 5 leaf x 42, each.....	1.30
1½ x 6 leaf x 42, each.....	1.40
1¾ x 5 leaf x 40, each.....	1.50
1¾ x 6 leaf x 40, each.....	1.75

DOUBLE-ELLIPTIC SPRINGS.

All sizes have 5-in. opening, 36 in. long.

Stock Number	Size of top half	Size of bottom half	Price each
No. 275	1⅜x3 lf.	1½x4 lf.	$2.00
No. 276	1⅜x4 lf.	1½x5 lf.	2.40
No. 277	1⅜x5 lf.	1½x6 lf.	2.60
No. 278	1⅜x6 lf.	1½x7 lf.	3.00

SPRINGS.

ELLIPTIC SPRINGS.

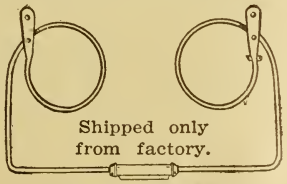
Button head, half bright. All 1¼ springs have 7½ opening, and all larger sizes 8-in. opening.

1¼ x 3 leaf x 34, price each	$0.70
1¼ x 4 leaf x 34, price each	.80
1¼ x 3 leaf x 36, price each	.80
1¼ x 4 leaf x 36, price each	.95
1⅜ x 4 leaf x 36, price each	1.00
1⅜ x 5 leaf x 36, price each	1.25
1⅜ x 6 leaf x 36, price each	1.45
1½ x 3 leaf x 36, price each	.95
1½ x 4 leaf x 36, price each	1.20
1½ x 5 leaf x 36, price each	1.40
1½ x 6 leaf x 36, price each	1.65
1¾ x 5 leaf x 36, price each	1.70
1¾ x 6 leaf x 36, price each	2.05
2 x 6 leaf x 36, price each	2.25

RIBBED ELLIPTIC SPRINGS.

We carry the following sizes of regular sweep elliptic springs ribbed, 8-in. opening.

1¾ x 5 leaf x 36, price each	$2.00
1¾ x 6 leaf x 36, price each	2.25
2 x 6 leaf x 36, price each	2.40

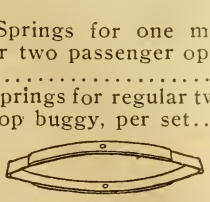


W. S. SHULER PATENT SPRINGS.

In ordering give width of body from out to out.

No. **11**—Springs for one man top buggy or two passenger open job, per set **$2.75**

No. **12**—Springs for regular two-passenger top buggy, per set..... **2.75**



SEAT SPRINGS.

1½ x 2 leaf x 26, per pair	50¢
1½ x 3 leaf x 28, per pair	80¢

FRENCH HEAD PLATFORM SPRINGS.

This style of spring is frequently used on rear part of low down wagons, which carry Duplex or Elliptic spring on front part. It requires two side springs and two cross springs to make a set, for rear part of a gear. The cross springs used are the same as our regular No. 16 cross springs shown on page 122, and may be ordered from that list.

No. 24½ French Head Platform Springs.

1¼ x 3 leaf, price each	$0.75
1¼ x 4 leaf, price each	1.00
1½ x 4 leaf, price each	1.25
1½ x 5 leaf, price each	1.40
1¾ x 5 leaf, price each	1.60

No. 5 OPEN HEAD ELLIPTIC BUGGY SPRINGS.

These are full sweep, half bright, oil tempered, open head, elliptic springs, made for high grade buggy work. Made in pairs, 3-leaf for front springs and 4-leaf for rear springs; 7½-in. opening.

1¼x3x36, price each	$1.00
1¼x4x36, price each	1.10

BOLSTER SPRINGS.

Springs are made of the very best oil tempered steel.

The only length we carry in stock is 38 inches and prices are here given based on that length. Other sizes and lengths may be made to order promptly. Prices quoted on application.

Width	Leaves	Capacity	
1½	3	1000 lbs.	$3.75
1½	4	1500 lbs.	4.00
1¾	4	2000 lbs.	5.00
1¾	5	2500 lbs.	5.50
2	5	3000 lbs.	6.00

AXLES.

COLLINGE COLLAR AXLES.

After experimenting with all forms of Long Distance axles, we are convinced that our Collinge Collar axles are just as good in every way, as any of those high priced patent axles sold under the name of "Long-Distance" or "Thousand-Mile" or "Patent Friction" or any other of the many fancy names given to such axles. They are made of refined steel with a bell collar at the rear end of hub, closing them up and making them dust-proof. They can be used with regular Sarven wheels.

We recommend them for high-grade work, both on buggies and spring wagons.

We carry the Collinge Collar axles in stock in stubs or short bed axles, and also in various styles of long bed axles as shown in the list below.

Plain Fan Tail.

Beds are flat on the under side.

¾x6½, per set	$1.80
⅞x6½, per set	1.80
1⅛x6½, per set	1.80
1 x6½, per set	2.00
1⅛x7, per set	2.50
1¼x7, per set	3.50

Swedged Fan Tail.

Beds are rounding on under side.

⅞x6½, per set	$1.90
1⅛x6½, per set	1.90
1 x6½, per set	2.10

Square Bed.

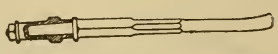
1 x6½, per set	$2.00
1⅛x7, per set	2.50
1¼x7, per set	3.50

Coached.

1 x6½, per set	$2.00
1⅛x7, per set	2.70
1¼x7, per set	3.50

Stubs (Short Bed).

¾x6½, per set	$1.25
⅞x6½, per set	1.25
1⅛x6½, per set	1.25
1 x6½, per set	1.50



GENUINE CONCORD AXLES.

Cut shows the construction of the Concord Solid Collar Axles. Made long bed only, no stubs.

Fan Tail.

1⅛x7, per set	$3.15
1¼x7, per set	3.70
1⅜x7, per set	4.70

Square Bed.

1⅛x 7, per set	$2.85
1¼x 7, per set	3.35
1⅜x 7, per set	4.25
1½x 8, per set	5.15
1¾x 9, per set	7.05
2 x10, per set	9.90

Coached.

1⅛x 7, per set	$3.15
1¼x 7, per set	3.70
1⅜x 7, per set	4.70
1½x 8, per set	5.70
1¾x 9, per set	8.00
2 x10, per set	11.00

SEPARATE BOXING.

These will fit only the Liggett double collar axles, and will not fit any other make. Do not order separate boxing unless you are willing to take all risks of their fitting your spindles. We caution our customers against taking such chances. Better buy new stubs.

¾x6½, boxing only, per set	$0.50
⅞x6½, boxing only, per set	.50
1⅛x6½, boxing only, per set	.55
1 x6½, boxing only, per set	.55
1⅛x6½, boxing only, per set	.65
1⅛x7, boxing only, per set	.75
1¼x6½, boxing only, per set	.80
1¼x7, boxing only, per set	.85
1⅜x7, boxing only, per set	1.00
1⅜x7½, boxing only, per set	1.20
1½x8, boxing only, per set	1.35

SEPARATE NUTS.

Guaranteed to fit Liggett double collar buggy axles, but not any other make. Rights and Lefts.

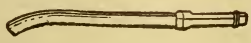
Nuts for ¾, ⅞, 1⅛, 1-in., or 1⅛ axles, price each	5¢
Nuts for 1¼ or 1⅜ axles	7¢

EXTRA REFINED STEEL LIGGETT AXLES.

Every set of axles which we advertise includes the boxing and the nuts, and a set consists of four axles, enough for one job.

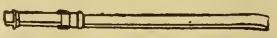
No. 11 FAN TAIL AXLES.

¾x6½,	per set	$1.60
⅞x6½,	per set	1.60
15/16x6½,	per set	1.60
1 x6½,	per set	1.75
1 1/16x6½,	per set	2.00
1⅛x6½,	per set	2.10
1⅛x7,	per set	2.10
1¼x7,	per set	2.50
1⅜x7,	per set	3.50



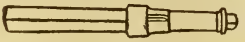
No. 11 COACHED AXLES.

¾x6½,	per set	$1.70
⅞x6½,	per set	1.70
1 x6½,	per set	1.85
1 1/16x6½,	per set	2.20
1⅛x6½,	per set	2.30
1⅛x7,	per set	2.30
1¼x7,	per set	2.60
1⅜x7,	per set	3.90
1½x8,	per set	4.80



No. 11 SQUARE BED AXLES.

15/16x6½,	per set	$1.60
1 x6½,	per set	1.75
1⅛x6½,	per set	2.10
1⅛x7,	per set	2.10
1¼x7,	per set	2.50
1⅜x7,	per set	3.50
1½x8,	per set	4.40



No. 12 STUB AXLES.

¾x6½,	per set	$1.20
⅞x6½,	per set	1.20
15/16x6½,	per set	1.20
1 x6½,	per set	1.30
1⅛x6½,	per set	1.60
1⅛x7,	per set	1.60
1¼x6½,	per set	1.90
1¼x7,	per set	1.90
1⅜x7,	per set	2.50
1⅜x7½,	per set	2.50
1½x8,	per set	3.50

CHARGES FOR WELDING AND SETTING AXLES.

If the welded axles ordered are intended to fit old wood beds, it is better to send the old woods to us rather than to give us a measurement only, such as "one inch arch" or "two inch drop," because in such cases we use our standard patterns which may not fit perfectly. Packages of old woods sent us must be plainly marked, and charges prepaid.

Standard narrow track is 4—8. Standard wide track is 5 foot, out to out. We furnish other widths if desired, but these are standard.

To get the price of a set of welded axles, select the axles listed in halves on pages 124 and 125, and add as follows for this work:

For ¾, ⅞, 15/16 and 1-in., any desired shape, per set	$0.75
For 1⅛ and 1¼, welded straight, no drop or arch, per set	1.00
For 1⅛ and 1¼, welded any desired drop or arch, per set	1.50
For 1⅜ and 1½, welded straight, no drop or arch, per set	1.50
For 1⅜ and 1½, welded any desired drop or arch, per set	2.00

DUPLEX AXLES.

On our Duplex gears we use regular double collar coached axles, which are shaped at the axle factory with the peculiar shape of drop which is used on no other gear except the Duplex. (Refer to cut of Duplex gears in this catalogue.) The following prices refer to the axles complete, shaped, welded and set, ready for use. Other widths of track than regular, extra, **50** cents.

1 x6½,	double collar Duplex axles, 4—8 or 5—0 track, per set	$2.75
1⅛x7,	double collar Duplex axles, 4—8 or 5—0 track, per set	3.50
1¼x7,	double collar Duplex axles, 4—8 or 5—0 track, per set	4.00
1⅜x7,	double collar Duplex axles, 4—8 or 5—0 track, per set	5.50
1½x8,	double collar Duplex axles, 4—8 or 5—0 track, per set	7.50

BAR IRON AND BAR STEEL.

Cut to Exact Length, 12 Feet Long.

Cutting all this stock to exact lengths, 12 feet, enables us to make a price by the bar, which is a great convenience to our customers. We will also, on application, quote net prices per hundred pounds to those who wish to buy that way, upon receipt of exact specifications, showing just the quantity and size required. Customers should note that we carry in stock both COMMON BAR IRON and SOFT STEEL, in all standard sizes.

ROUND IRON.

In 12-Foot Bars Only.

3/16, per bar	$0.03
1/4, per bar	.04
5/16, per bar	.07
3/8, per bar	.09
7/16, per bar	.12
1/2, per bar	.14
9/16, per bar	.19
5/8, per bar	.22
3/4, per bar	.31
7/8, per bar	.42
1, per bar	.53
1 1/8, per bar	.67
1 1/4, per bar	.78
1 3/8, per bar	.96
1 1/2, per bar	1.17

BAND IRON.

In 12-Foot Bars Only.

3/8 x 1/8, per bar	4c
1/2 x 1/8, per bar	6c
5/8 x 1/8, per bar	7c
3/4 x 1/8, per bar	7c
7/8 x 1/8, per bar	8c
1 x 1/8, per bar	9c
1 1/8 x 1/8, per bar	10c
1 1/4 x 1/8, per bar	11c
1 3/8 x 1/8, per bar	12c
1 1/2 x 1/8, per bar	14c
1 3/4 x 1/8, per bar	17c
2 x 1/8, per bar	20c
2 1/4 x 1/8, per bar	22c
2 1/2 x 1/8, per bar	25c
2 3/4 x 1/8, per bar	28c
3 x 1/8, per bar	30c
4 x 1/8, per bar	38c

HOOP STEEL.

In 12-Foot Bars Only.

3/4 x No. 18, per bar	7¢
1 x No. 16, per bar	10¢
1 1/4 x No. 16, per bar	12¢
1 1/2 x No. 16, per bar	15¢

ROUND SOFT STEEL.

In 12-Foot Bars Only.

1/4, per bar	5c
5/16, per bar	7c
3/8, per bar	9c
7/16, per bar	12c
1/2, per bar	14c
9/16, per bar	19c
5/8, per bar	22c
3/4, per bar	31c

BAND STEEL.

In 12-Foot Bars Only.

1/2 x No. 12, per bar	6c
5/8 x No. 12, per bar	7c
3/4 x No. 12, per bar	8c
7/8 x No. 12, per bar	8c
1 x No. 12, per bar	9c
1 1/4 x No. 12, per bar	12c
1 1/2 x No. 12, per bar	13c
1 3/4 x No. 12, per bar	16c
2 x No. 12, per bar	18c
2 1/2 x No. 12, per bar	22c
3 x No. 12, per bar	27c
4 x No. 12, per bar	33c

WAGON BOX STEEL.

Beveled Edge.

In 12-Foot Bars Only.

3/4 x No. 12, per bar	10¢
7/8 x No. 12, per bar	12¢

WAGON BOX STEEL.

Beveled Edge. Holes Punched and Countersunk.

In 14-Foot Bars Only.

3/4 x No. 12, per bar	13¢
7/8 x No. 12, per bar	16¢

BAR IRON AND BAR STEEL.

Cut to Exact Length, 12 Feet Long.

Cutting all this stock to exact lengths, 12 feet, enables us to make a price by the bar, which is a great convenience to our customers. Upon application accompanied by exact specifications, we will also quote net prices per 100 lbs.

SQUARE EDGE IRON.

In 12-Foot Bars Only.

¾x$\frac{3}{16}$, per bar	12c
⅞x$\frac{3}{16}$, per bar	14c
1 x$\frac{3}{16}$, per bar	15c
¾x¼, per bar	13c
⅞x¼, per bar	16c
1 x¼, per bar	18c
1⅛x¼, per bar	21c
1¼x¼, per bar	23c
1½x¼, per bar	25c
1¾x¼, per bar	32c
2 x¼, per bar	34c
2¼x¼, per bar	39c
2½x¼, per bar	45c
1 x$\frac{5}{16}$, per bar	23c
1¼x$\frac{5}{16}$, per bar	31c
1½x$\frac{5}{16}$, per bar	35c
2 x$\frac{5}{16}$, per bar	51c
2½x$\frac{5}{16}$, per bar	54c
1 x⅜, per bar	26c
1¼x⅜, per bar	32c
1½x⅜, per bar	38c
1 x½, per bar	35c
1¼x½, per bar	43c
1½x½, per bar	50c

ROUND EDGE IRON.

In 12-Foot Bars Only.

This is regular iron wagon tire, which we here list in 12-foot bars for the convenience of the trade.

1¼x$\frac{5}{16}$, per bar	32c
1¼x⅜, per bar	36c
1⅜x⅜, per bar	38c
1½x⅜, per bar	40c
1½x½, per bar	53c
1¾x⅜, per bar	43c
1¾x½, per bar	59c
2 x½, per bar	68c

BEVELED EDGE SHAFT IRON.

In 12-Foot Bars Only.

1¼x¼, per bar	25c
1¼x$\frac{5}{16}$, per bar	30c

SQUARE IRON.

In 12-Foot Bars Only.

⅜, per bar	13c
½, per bar	20c
⅝, per bar	32c
¾, per bar	43c
⅞, per bar	60c
1, per bar	76c

OVAL IRON.

In 12-Foot Bars Only.

⅜, per bar	5c
½, per bar	11c
⅝, per bar	15c
¾, per bar	22c
⅞, per bar	25c

HALF OVAL IRON.

In 12 Foot Bars Only.

⅜, per bar	4c
½, per bar	6c
⅝, per bar	8c
¾, per bar	11c
⅞, per bar	14c

HALF ROUND IRON.

In 12-Foot Bars Only.

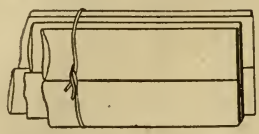
½, per bar	10c
⅝, per bar	15c
¾, per bar	23c

SPRING STEEL.

1¼x¼, per 100 pounds	$5.00
1⅜x¼, per 100 pounds	5.00
1½x¼, per 100 pounds	5.00
1¾x¼, per 100 pounds	5.00
2 x¼, per 100 pounds	5.00

STEEL AND IRON TIRE.

We Will Bend Any Set of Tire, Any Desired Height, for 15 Cents per Set.



ROUND EDGE STEEL TIRE.

Guaranteed perfectly straight. The best tire on the market. Stock lengths are 11 feet 2 inches and 12 feet 9 inches making the front tire long enough for 42-in. wheels, and the hind tire long enough for 48-in. wheels. Note these lengths when comparing our prices with others.

¾x$\frac{3}{16}$, price per set	$0.60
¾x¼, price per set	.75
⅞x$\frac{3}{16}$, price per set	.65
⅞x¼, price per set	.85
⅞x$\frac{5}{16}$, price per set	1.10
1 x$\frac{3}{16}$, price per set	.70
1 x¼, price per set	.90
1 x$\frac{5}{16}$, price per set	1.15
1⅛x¼, price per set	1.05
1⅛x$\frac{5}{16}$, price per set	1.25
1⅛x⅜, price per set	1.55
1¼x¼, price per set	1.05
1¼x$\frac{5}{16}$, price per set	1.35
1¼x⅜, price per set	1.65
1¼x½, price per set	2.25
1⅜x⅜, price per set	1.80
1⅜x½, price per set	2.45
1½x⅜, price per set	2.00
1½x½, price per set	2.70

THE BARBOUR METAL TIRE.

The latest thing for buggy tires. Applied just like any other steel tire, and has the appearance of rubber tire. It will ride much easier and has greater wearing qualities than the standard flat steel tire. Descriptive circular mailed on application.

Size, ¾, per set	$1.75
Size, ⅞, per set	2.00
Size, 1-in., per set	2.25

ROUND EDGE IRON WAGON TIRE.
11 Feet and 12 Feet Long.

This length will answer for wheels 40 and 44-in. high and smaller. For longer tire, see list below.

2 x$\frac{5}{16}$, 11 and 12 ft., per set	$1.70
2 x⅜, 11 and 12 ft., per set	1.90
2 x½, 11 and 12 ft., per set	2.55
2 x⅝, 11 and 12 ft., per set	3.25
2½x$\frac{5}{16}$, 11 and 12 ft., per set	2.00
2½x⅜, 11 and 12 ft., per set	2.40
2½x½, 11 and 12 ft., per set	3.15
2½x⅝, 11 and 12 ft., per set	4.10
3 x⅜, 11 and 12 ft., per set	3.00
3 x½, 11 and 12 ft., per set	3.80
3 x⅝, 11 and 12 ft., per set	5.10
3 x¾, 11 and 12 ft., per set	5.80
3½x⅜, 11 and 12 ft., per set	3.40
3½x½, 11 and 12 ft., per set	4.55
4 x⅜, 11 and 12 ft., per set	4.20
4 x½, 11 and 12 ft., per set	5.45

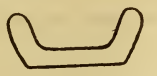
ROUND EDGE IRON WAGON TIRE.
12 Feet and 15 Feet Long.

These tires are suitable for any height wheel up to 44 and 54 inches.

1¼x⅜, 12 and 15 ft., per set	$1.60
1⅜x⅜, 12 and 15 ft., per set	1.65
1½x⅜, 12 and 15 ft., per set	1.70
1½x½, 12 and 15 ft., per set	2.25
1¾x⅜, 12 and 15 ft., per set	1.95
1¾x½, 12 and 15 ft., per set	2.65
1¾x⅝, 12 and 15 ft., per set	3.25
2 x$\frac{5}{16}$, 12 and 15 ft., per set	2.00
2 x⅜, 12 and 15 ft., per set	2.30
2 x½, 12 and 15 ft., per set	3.00
2 x⅝, 12 and 15 ft., per set	3.75
2½x$\frac{5}{16}$, 12 and 15 ft., per set	2.40
2½x⅜, 12 and 15 ft., per set	2.80
2½x½, 12 and 15 ft., per set	3.75
2½x⅝, 12 and 15 ft., per set	4.40
3 x⅜, 12 and 15 ft., per set	3.55
3 x½, 12 and 15 ft., per set	4.40
3 x⅝, 12 and 15 ft., per set	5.50
3 x¾, 12 and 15 ft., per set	6.75
3½x⅜, 12 and 15 ft., per set	4.00
3½x½, 12 and 15 ft., per set	5.40
4 x⅜, 12 and 15 ft., per set	4.60
4 x½, 12 and 15 ft., per set	6.40

We will bend your tire for 15 cts. per set

CHANNEL TIRE, TOE CALK STEEL, HORSE SHOE BAR, ETC.



STANDARD CHANNEL TIRE.

For Solid Rubber.

Channel tire are measured outside on the bottom, and should be ordered the same size as the width of the rim of the wheel on which it is to be used.

Stock lengths are long enough for wheels 42-in. and 48-in. high.

¾ channel tire, per set.....**$0.85**
⅞ channel tire, per set..... **1.00**
1-in. channel tire, per set..... **1.15**

We do not carry larger sizes than this in stock, but will quote prices on same for direct shipment, upon application.

CUSHION CHANNEL TIRE.

For Round Cushion Rubber.

All cushion channel tire measures ⅞ wide on the bottom outside, regardless of the diameter of the rubber used in them. Therefore these tire will only fit wheels having ⅞ rims. These tire must therefore be ordered according to the diameter of the rubber.

Size of Rubber	Per Set
1-in. cushion channels	**$1.25**
1⅛ cushion channels	**1.40**
1¼ cushion channels	**1.50**

BLACK DIAMOND TOOL STEEL.

The best tool steel on the market.

Following sizes carried in stock:

Round:—

½, ⅝, ¾, ⅞, 1-in. and 1¼.

Square:—

½, ⅝, ¾, ⅞, 1-in., 1¼, 1½ and 2-in.

Octagon:—

½, ⅝, ¾, ⅞, 1-in. and 1¼.

All sizes, per pound.....**12¢**

TOE CALK STEEL.

1 x½, per 100 pounds.....	**$2.75**
⅞x½, per 100 pounds.....	**2.75**
¾x½, per 100 pounds.....	**2.75**
¾x$\frac{7}{16}$, per 100 pounds.....	**2.75**
⅝x$\frac{7}{16}$, per 100 pounds.....	**2.75**
½x$\frac{7}{16}$, per 100 pounds.....	**2.75**
1 x⅜, per 100 pounds.....	**2.75**
⅞x⅜, per 100 pounds.....	**2.75**
¾x⅜, per 100 pounds.....	**2.75**
⅝x⅜, per 100 pounds.....	**2.75**
½x⅜, per 100 pounds.....	**2.75**
¾x$\frac{5}{16}$, per 100 pounds.....	**3.00**
⅝x$\frac{5}{16}$, per 100 pounds.....	**3.00**
½x$\frac{5}{16}$, per 100 pounds.....	**3.00**
⅜x$\frac{5}{16}$, per 100 pounds.....	**3.15**
⅝x¼, per 100 pounds.....	**3.15**
½x¼, per 100 pounds.....	**3.15**
⅜x¼, per 100 pounds.....	**3.50**
$\frac{5}{16}$x¼, per 100 pounds.....	**3.50**
⅝x$\frac{3}{16}$, per 100 pounds.....	**3.25**
½x$\frac{3}{16}$, per 100 pounds.....	**3.75**
⅜x$\frac{3}{16}$, per 100 pounds.....	**3.75**

Permit us to call attention to our complete and well selected line of bar iron, steel and similar goods.

We do not aim to handle everything, but it is our purpose to keep a nice, clean stock of all the standard goods used in blacksmith shops and wagon repair shops.

Our personal attention is given to all orders.

GENUINE NORWAY IRON.

Following sizes are always carried in stock. Other sizes shipped direct from the eastern importers.

Stock sizes:

Round:—

¼, $\frac{5}{16}$, ⅜, $\frac{7}{16}$, ½, ⅝ and ¾.

Square:—

⅜, $\frac{7}{16}$, ½, ⅝ and ¾.

Flat:—

¾x⅜, ¾x½, 1x½, 1¼x½, 1½x½.

All sizes, per 100 pounds.....**$4.75**

HORSE SHOES.

PHŒNIX EXTRA LIGHT STEEL.

All sizes, 2 to 6, per keg.....$4.00
No. 1, per keg..... 4.25
Fronts and hinds of a size in a keg without extra charge if so ordered.
Assorted sizes in kegs, or less than full kegs, per pound.....4¼c

PHŒNIX IRON SNOW.

All sizes, 2 to 7, per keg $4.00
No. 1, per keg 4.25
Fronts and hinds of a size in a keg without extra charge if so ordered.
Assorted sizes in kegs, or less than full kegs, per pound.....4¼c

PHŒNIX COUNTERSUNK STEEL.

All sizes, 2 to 4, per keg.....$5.00
No. 1, per keg..... 5.25
Fronts and hinds of a size in a keg without extra charge if so ordered.
Assorted sizes in kegs, or less than full kegs, per pound.....5½c

PHŒNIX EX. EX. LIGHT STEEL OR FEATHERWEIGHT.

All sizes, 2 to 5 per keg.....$4.75
No. 0 and No. 1, per keg..... 5.00
Fronts and hinds of a size in a keg without extra charge if so ordered.
Assorted sizes in kegs, or less than full kegs, per pound.....5½c

NEVER-SLIP SHOES.

We carry the genuine Red-Tip shoes in two of the most popular patterns. All of our shoes are drilled ready to be tapped for screw calks.
Creased steel shoes suitable for all regular work, sizes 2 to 6, per pound 9c
Countersunk steel shoes suitable for road or light work, sold by the pair.
No. 1 to No. 4, per pair.....19c
No. 5, per pair.....23c

PHŒNIX EXTRA LIGHT IRON.

All sizes, 2 to 8, per keg $4.00
No. 0 and No. 1, per keg..... 4.25
Fronts and hinds of a size in a keg without extra charge if so ordered.
Assorted sizes in kegs, or less than full kegs, per pound.....4¼c

PHŒNIX LIGHT LONG STEEL IRON.

All sizes, 3 to 7, per keg.....$4.00
Fronts and hinds of a size in a keg without extra charge if so ordered.
Assorted sizes in kegs, or less than full kegs, per pound.....4¼c

PHŒNIX IRON MULE.

All sizes, 1 to 4, per keg.....$4.25
Assorted sizes in kegs, or less than full kegs, per pound.....4½c

BOSS LIGHT TOE WEIGHT.

No. 1, No. 2 and No. 3 carried in stock, per pound.....7c

BOSS LIGHT SIDE WEIGHT.

No. 1 and No. 2 in stock.
Not sold by the pound.
Price per pair.....18c

SPECIAL OFFER.

On orders for ten kegs of horse shoes, cash with order, deduct **10c** per keg.
On orders for ten boxes of toe calks, cash with order, deduct **5c** per box.

GENUINE RED-TIP CALKS AND TOOLS.

7/16 Drive calks, per 100.....$2.20
½ Drive calks, per 100..... 2.25
9/16 Drive calks, per 100..... 2.40
5/8 Drive calks, per 100..... 2.50
Drive calk extractors, each..... .25
Drive calk punches, each..... .15
Stub taps, 7/16 to 5/8, each ..... .30
Tapper taps, 7/16 to 5/8, each..... .30
Johnson wrenches, each..... 1.75

HORSE SHOE NAILS.

NEW GOSHEN HORSE SHOE NAILS.

We can recommend this nail to our customers, as we have sold it for years. It is made of first-class tough Swedish stock, is a nice driver, and holds the shoe fully as well as many high priced nails. It is not a cut nail, but is made exactly like the other good nails. Many of the best horseshoers in the country prefer it above all others.

City Heads Only.

No. 5—Per box of 25 lbs	$2.00
Less than full boxes, per lb	.10
No. 6—Per box of 25 lbs	2.00
Less than full boxes, per lb	.10
No. 7—Per box of 25 lbs	2.00
Less than full boxes, per lb	.10
No. 8—Per box of 25 lbs	2.00
Less than full boxes, per lb	.10
No. 9—Per box of 25 lbs	2.00
Less than full boxes, per lb	.10

"CAPEWELL" HORSE SHOE NAILS.

The Capewell nail is without doubt the very best and highest priced nail on the market. In offering them to our customers at list price, we are only conforming with the rule laid down by the manufacturers, which does not permit any one to sell them for less. In lots of 250 lbs. we make a discount of **10** per cent from these prices.

Regular Heads, City Heads and Plate Heads.

No. 4—Per lb	32¢
No. 5—Per lb	20¢
No. 6—Per lb	17¢
No. 7—Per lb	16¢
No. 8—Per lb	15¢
No. 9—Per lb	15¢

These nails are put up in 5-lb. packages, and we do not break packages.

No. 4 are put up in 1-lb. packages.

"STAR" HORSE SHOE NAILS.

These nails are the genuine Star, with the little star stamped on every head. Don't let any one make you believe that they are an imitation of this famous nail.

Regular and City Heads.

No. 4—Per lb	30¢
No. 5—Per lb	15¢
No. 6—Per lb	15¢
No. 7—Per lb	15¢
No. 8—Per lb	15¢
No. 9—Per lb	15¢

These nails are put up in 5-lb. packages and we do not break packages.

No. 4 are put up in 1-lb. packages.

"LUCKY" HORSE SHOE NAILS.

This nail is the same that in former years we sold under the name of "Goshen Nails." For a long time the factory did not make them, but we have them once more and many of our old customers appreciate the fact.

Put up in 5-lb. packages. We do not break packages.

Regular Heads.

No. 5—Per lb	12¢
No. 6—Per lb	12¢
No. 7—Per lb	12¢
No. 8—Per lb	12¢
No. 9—Per lb	12¢

Countersunk Heads.

No. 5—Per lb	12¢
No. 6—Per lb	12¢
No. 7—Per lb	12¢

HORSE SHOERS:

Our line of horse-shoers' supplies is well selected. We have what you want. We make quick shipments. We sell at low prices. Give us a trial order.

HOOF PADS.

Within a few years, horse shoers everywhere have learned that the hoof pad business is one of the important parts of the trade. There is an endless variety of pads on the market and it would be useless to try carrying all of them in stock so we have selected two of the best sellers which we offer to the trade. Both of these pads are made by reliable manufacturers and are strictly first class goods. Give them a trial.

SAMSON RUBBER PADS.

An extra heavy canvas-back pad.

No. 0—Price per pair	$0.65
No. 1—Price per pair	.65
No. 2—Price per pair	.65
No. 3—Price per pair	.65
No. 4—Price per pair	.70
No. 5—Price per pair	.80
No. 6—Price per pair	.95
No. 7—Price per pair	1.10

"TARCO" BRAND NAVY OAKUM.

No up-to-date shoeing shop is complete without a supply of hoof packing and we carry in stock several strictly first class articles in our Pure Pine Tar listed on page 137 and our Navy Brand Oakum listed below.

Navy Brand Oakum, per pound.....7½c

Navy Brand Oakum, in full bales of 50 pounds, per pound.....6½c

STERLING RUBBER PADS.

Red fibre back, heavy rubber heel.

No. 0—Price per pair	$0.45
No. 1—Price per pair	.45
No. 2—Price per pair	.50
No. 3—Price per pair	.55
No. 4—Price per pair	.65
No. 5—Price per pair	.75
No. 6—Price per pair	.90
No. 7—Price per pair	1.00

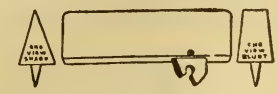
This is without a doubt the most popular-priced pad on the market. It is low in price but high in quality, being made of a special fibre combination which insures the maximum of wear. Give it a trial.

PLAIN LEATHER PADS.

These pads have no rubber on them, but are simply pieces of heavy sole leather cut out in the correct sizes. They are done up in packages of one dozen pieces, and are sold by the dozen pieces, not in pairs.

No. 1—Price per doz. pieces	$0.60
No. 2—Price per doz. pieces	.70
No. 3—Price per doz. pieces	.80
No. 4—Price per doz. pieces	.90
No. 5—Price per doz. pieces	1.00
No. 6—Price per doz. pieces	1.10
No. 7—Price per doz. pieces	1.20

BULL DOG TOE CALKS.



The demand for this style of calk is increasing so rapidly that we have found it advisable to discontinue all other brands.

The following are the stock sizes which we carry in all patterns: No. 0, No. 1, No. 2, No. 3, No. 4, No. 5 and No. 6.

BLUNT, LONG PATTERN.

This is the most popular style.

Full 25-lb. boxes, per box.....**$1.15**
Less than full boxes, per lb..... **.05**

BLUNT, EXTRA LONG PATTERN.

Made especially for city work.

Full 25-lb. boxes, per box.....**$1.15**
Less than full boxes, per lb..... **.05**

BLUNT HEEL, OR SIDE CALKS.

Same size of steel as the toe calks but made very short, for heels.

Full 25-lb. boxes, per box.....**$1.35**
Less than full boxes, per lb..... **.06**

SHARP, LONG PATTERN.

The most popular sharp calk made.

Full 25-lb. boxes, per box.....**$1.30**
Less than full boxes, per lb..... **.06**

SHARP, EXTRA LONG PATTERN.

Made especially for city work.

Full 25-lb. boxes, per box.....**$1.30**
Less than full boxes, per lb..... **.06**

SHARP HEEL, OR SIDE CALKS.

Same size of steel as the toe calks, but made very short, for heels.

Full 25-lb. boxes, per box.....**$1.50**
Less than full boxes, per lb..... **.07**

HORSE RASPS.

It is useless to pay a fancy price for some particular brand on a horse rasp. By having the factory put our brand on the goods, instead of the regular factory brand, we are able to offer our customers a rasp at a low price, exactly the same in quality as the rasps which are now being sold for twice the money under other names.

GOSHEN HORSE RASPS.

The best rasp on the market regardless of price.

We have sold this rasp for twenty years without a single complaint.

16-in. plain rasps, per doz.....**$4.00**
Less than ½ doz., each..... **.35**
18-in. plain rasps, per doz..... **4.60**
Less than ½ doz., each..... **.40**

GOSHEN TANGED RASPS.

12-in. tanged rasps, per doz.....**$2.80**
Less than ½ doz., each..... **.25**
14-in. tanged rasps, per doz..... **4.00**
Less than ½ doz., each..... **.35**
16-in. tanged rasps, per doz..... **5.20**
Less than ½ doz., each..... **.45**

NEVERSLIP TOE CALKS, TAPS AND DRILLS.

We handle nothing but the genuine Neverslip goods, with the red tips. The No. 4, square base, Neverslip calk, is the only style carried in stock. It is the standard style, which may be used in new or old shoes, and is put in or taken out without the use of any special tools.

SQUARE BASE CALKS.

5/16, price per 100.....**$2.00**
3/8, price per 100..... **2.00**
7/16, price per 100..... **2.20**
1/2, price per 100..... **2.20**
9/16, price per 100..... **2.40**
5/8, price per 100..... **2.40**

NEVERSLIP, ½ INCH SHANK DRILL.

3/8 Drills, price each.....**38¢**
7/16 Drills, price each.....**43¢**
1/2 Drills, price each.....**46¢**
9/16 Drills, price each.....**51¢**
5/8 Drills, price each.....**60¢**

NEVERSLIP HAND TAPS.

3/8 Taps, price each.....**30¢**
7/16 Taps, price each.....**30¢**
1/2 Taps, price each.....**30¢**
9/16 Taps, price each.....**30¢**
5/8 Taps, price each.....**30¢**

HORSE SHOERS' TOOLS AND SUPPLIES.

Good Mechanics Require Good Tools. We Handle Heller Bros. Exclusively.

TURNING SLEDGE.

Without Handle.
5, 6, 7, 8 or 9 lbs.
Price per lb.....**18¢**

ROUNDING HAMMER.

Fitted with good hickory handle.
1¾, 2, 2¼, 2½, 2¾ or 3 lbs.
Price each **$1.35**

CAT-HEAD TURNING HAMMER.

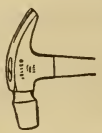
Fitted with good hickory handle.
2, 2¼, 2½, 2¾ or 3 lbs.
Price each **$1.35**

FITTING HAMMER.

Fitted with good hickory handle.
2, 2¼, 2½, 2¾ or 3 lbs.
Price each **$1.05**

HAND HAMMER.

Fitted with good hickory handle.
2, 2¼ or 2½ lbs.
Price each .....**70¢**



HELLER PATTERN DRIVING HAMMER.

Fitted with good hickory handle.
14, 15, 16, 17 or 18 oz. weights.
Price each .....**65¢**

SCOTCH PATTERN DRIVING HAMMER.

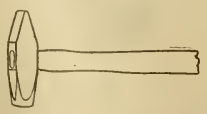
Fitted with good hickory handle.
14, 15, 16, 17 or 18 oz. weights.
Price each .....**65¢**

ELECTRIC SHARPENING HAMMER.

Fitted with good hickory handle.
2, 2¼, 2½ or 2¾ lbs.
Price each **$1.20**

BALL-PEIN HAMMER.

Fitted with good hickory handle.
2 lbs. and 2¼ lbs.
Price each .....**75¢**



RIVETING HAMMER.

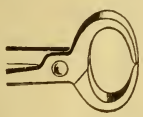
Fitted with good hickory handle.
Two sizes, 12 oz. and 18 oz.
Price each .....**50¢**

HORSE SHOERS' TOOLS AND SUPPLIES.

Every Tool We Sell is Fully Guaranteed. Made by Reliable Manufacturers.

HELLER BROS.' CUTTING NIPPERS.

10-in., per pair.....**$0.90**
12-in., per pair..... **1.10**
14-in., per pair..... **1.30**



HELLER BROS.' PINCERS.

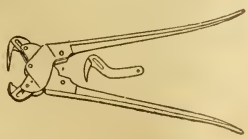
12-in., per pair.....**$0.85**
14-in., per pair..... **1.15**

HELLER BROS.' HOOF PARERS

12-in., per pair.....**$1.10**
14-in., per pair..... **1.35**

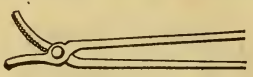
EASY HOOF TRIMMERS.

The best hoof trimmer on the market. Light and serviceable.
Price each.....**$1.35**
Extra blades for same, each..... **.10**



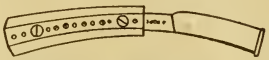
THE GIANT HOOF PARER.

Something new; very strong. Jaws open 1¼ in.
Price per pair.....**$1.60**



HELLER BROS.' CLINCH TONGS.

14-in., price per pair.....**$1.25**



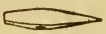
IRON HANDLE FARRIER KNIVES.

Two sizes, ½-in. and ⅝-in.

With handles, price each.....**25¢**
Without handle, blade only, each...**20¢**

CREASERS.

Price each .....**28¢**



FORE PUNCHES

Price each .....**25¢**

SOLE KNIVES.

Price each .....**28¢**

BUFFERS.

Price each .....**28¢**

FARRIERS' PRITCHELS.

12 in. long.

Price each .....**18¢**

BLACKSMITHS' TOOLS AND SUPPLIES.

We Handle Nothing but the Product of the Best Manufacturers in This Line.

DOUBLE-FACE SLEDGES.

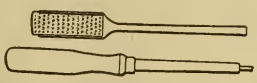
Solid cast steel, polished faces; 6, 8, 10, 12 or 16 lbs.

Price per lb. .....**8¢**

CROSS-PEIN SLEDGES.

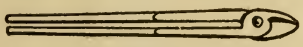
Solid cast steel, polished faces; 6, 8, 10, 12 or 16 lbs.

Price per lb. .....**8¢**



JOINTED HORSE TOOTH FILES.

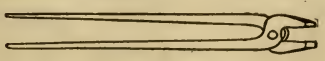
Complete with one rasp, each....**$1.05**
Extra rasps for same, each..... **.18**



HORSE SHOER'S TONGS.

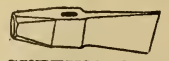
Heavy Pattern.

No. 14—14 in. long, per pair.....**25¢**
No. 16—16 in. long, per pair.....**25¢**
No. 17—17 in. long, per pair.....**30¢**



BLACKSMITHS' COMMON TONGS.

	Size	Length	Pair
No. **25**	⅛	14 in.	**35¢**
No. **27**	¼	14 in.	**35¢**
No. **29**	⅜	16 in.	**40¢**
No. **31**	½	20 in.	**45¢**
No. **33**	⅝	24 in.	**50¢**
No. **35**	¾	24 in.	**50¢**

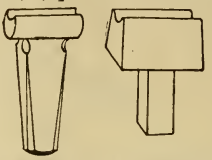


HOT CUTTING CHISELS.

Size of cut, 1½, price each.....**40¢**

COLD CUTTING CHISELS

Size of cut, 1½, price each.....**50¢**



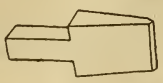
BLACKSMITHS' SWAGES.

For Round Iron. In Pairs.

Size ⅜, per pair.....**$0.60**
Size ½, per pair..... **.70**
Size ⅝, per pair..... **.80**
Size ¾, per pair..... **.90**
Size 1-in., per pair..... **1.00**

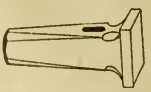
BLACKSMITHS' ROUND PUNCHES.

Size ⅜, price each.....**30¢**
Size ½, price each.....**35¢**
Size ⅝, price each.....**40¢**
Size ¾, price each.....**45¢**



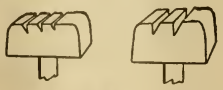
STRAIGHT HARDIES.

⅞ square shank, price each.....**25¢**



BLACKSMITHS' FLATTERS.

2½-in. square face, price each.....**50¢**



WELDING DIES.

For welding sharp toe calks. Large size welds No. 3 to No. 6. Small size welds No. 0 to No. 2.

Price each .....**65¢**

BLACKSMITHS' TOOLS AND SUPPLIES.

We Handle Nothing But Good Reliable Goods in this line. Fully Guaranteed.

BLACKSMITHS' APRONS.

We handle blacksmith aprons in two qualities, the soft russet split leather, and the heavy muleskin.

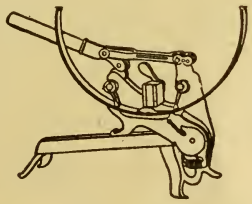
Our split leather aprons undergo a special tanning process, which renders them soft and pliable, and they never get hard.

The muleskin apron, light gray in color, and heavy weight, are too well known to need description.

All of our aprons are trimmed to size, 28x38, and furnished with strings.

No. 1—Heavy weight, soft russet split-leather apron, each.....**$1.60**

No. 2—Heavy weight, genuine soft muleskin apron, each.....**$2.00**



MOLE TIRE SHRINKERS.

After long investigation, and many tests, we are able to offer our customers a Mole shrinker, which will positively do the work, without danger of breaking down at the time when most needed, as many mole shrinkers do. We carry in stock only the large heavy size No. 3, which will shrink large 4-in. tire, and will also work equally well on buggy tire. Full guaranteed.

Price each **$11.00**

WELDING COMPOUNDS.

Borax-Ette, in 5 lb. packages only per pound .....**10¢**

Climax Welding Compound, in bulk, per pound ..... **8¢**

Cherry Heating Welding Compound, in bulk, per pound.....**12¢**

Extra Refined Crystal Borax, in bulk, per pound.....**10¢**

E-Z Welding Compound, in 5 lb. packages only, per pound..... **8¢**

PURE PINE TAR.

For horse shoer's purposes.

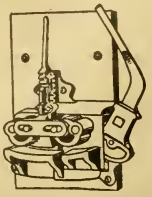
Price per gallon can.....**$0.40**

Price per five gallon can..... **1.75**

PEAT MOSS HOOF STUFFING.

A standard article for keeping the hoof of a horse in good condition. Packed in pails.

Price per pail.....**$1.00**



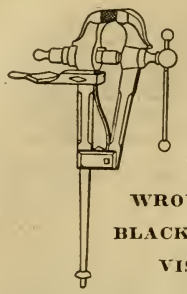
STODDARD TIRE SHRINKERS.

We carry in stock only the No. 3 special machine which has extra sets of loose jaws making it adjustable for light and heavy tire, 4-in. wide down to buggy tire, will also upset steel axles 1¼ thick.

Price each **$12.00**

BLACKSMITHS' TOOLS AND SUPPLIES.

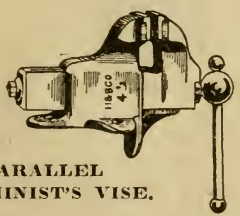
These Goods are Fully Guaranteed. None Better Made Anywhere.



WROUGHT BLACKSMITH VISE.

We carry four sizes of these in stock, and can ship other sizes direct from the factory. They are genuine wrought iron, and fully warranted.

60 lb., 5 -in. jaw; each.....**$5.00**
65 lb., 5 -in. jaw; each..... **5.50**
70 lb., 5¼-in. jaw; each..... **6.00**
75 lb., 5¼-in. jaw; each..... **6.50**



PARALLEL MACHINIST'S VISE.

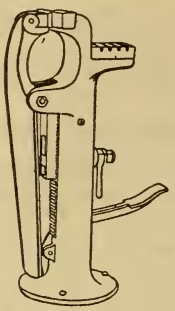
The best vise ever constructed. First-class heavy material used in its construction, with steel jaws, and first-class screw.

No. 1—4-in. jaw; opening 4½ in. each **$5.50**
No. 2—5-in. jaw; opening 7 in. each **6.50**

GOSHEN FIRE POT.

Weight about 50 lbs.; 3 in. thick; top opening, 8x8; bottom opening, 5x6. Makes the best kind of a forge for all work.

Price each **$1.25**



LITTLE GIANT FOOT VISE.

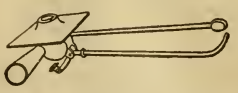
Weight 165 lbs., including dies for the use of horse shoers in welding sharp toe calks. This is the best foot vise ever offered to the trade. We ship it only from the eastern factory direct to our customers.

Price each **$9.75**

BELLOWS.

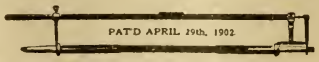
Covered with good leather. Standard pattern.

36-in., price each.....**$7.50**
38-in., price each..... **8.25**
40-in., price each..... **9.50**



WARREN PATENT TUYER IRON.

Price each **$1.50**



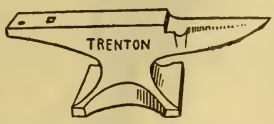
REYNOLDS AXLE GAUGE.

No carriage shop can afford to be without this wonderful tool. It is suitable for any width of axle, and will register instantly on a dial, the amount of set or gather of any axle.

Price each **$3.50**

BLACKSMITHS' TOOLS AND SUPPLIES.

Our Line Includes Only the Product of the Most Reliable Manufacturers.



TRENTON ANVILS.

We carry in stock genuine Trenton anvils, which are known to be the best American anvil made. Guaranteed solid wrought iron body, with heavy steel face, fully guaranteed.

REGULAR PATTERN.

This is the standard blacksmith's pattern, for all regular work. Stock sizes are as follows, and other sizes and weights can be readily obtained direct from the factory.

No. 1—Trenton anvil, regular pattern, face 3½-in. wide, weight about 130 lbs. Price per pound..**11¢**

No. 2—Trenton anvil, regular pattern, face 4-in. wide, weight about 150 lbs. Price per pound..**11¢**

HORSE SHOER'S PATTERN.

The most famous horse shoer's anvil ever produced. Has a narrow face, with good full, deep horn, and also has the clip horn. Made with two pritchel holes. Stock sizes are as follows, and other sizes and weights can be readily obtained direct from the factory.

No. 3—Trenton anvil, horse shoer's pattern, face 3¼-in. wide, weight about 120 lbs. Price per pound..**12¢**

No. 4—Trenton anvil, horse shoer's pattern, face 3½-in. wide, weight about 140 lbs. Price per pound..**12¢**

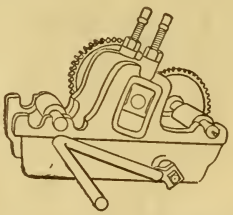
PETER WRIGHT ANVILS.

Made in England.

Through a favorable arrangement with a Chicago Importing house, we are able to fill orders direct from a large stock in Chicago, instead of carrying a stock of these anvils here in Goshen. We can thus furnish promptly, any desired size and weight.

Regular pattern anvils, per lb.....**11¢**

Horse shoer's pattern, per lb.....**12¢**



NO. 3 TIRE BENDER.

Double geared, turned rollers, Extra strong. Will bend 5-in. tire or less. Two cranks may be used when bending extra heavy tire.

Price with one crank.....**$7.00**

BLACKSMITH COAL.

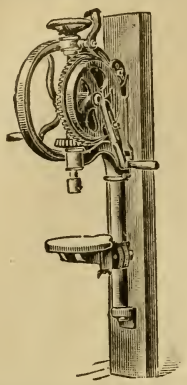
Packed in barrels containing 200 lbs. The best coal that money can buy.

Price per barrel.....**$1.00**

DIXON'S GRAPHITE AXLE GREASE.

This is one of those articles which needs to be tested before the purchaser can understand just how good it is. Unlike any other axle lubricant on earth, and equally good for fine carriages and heavy wagons. One pound in a box, which will go as far as three boxes of ordinary axle grease.

Price per box.....**15¢**



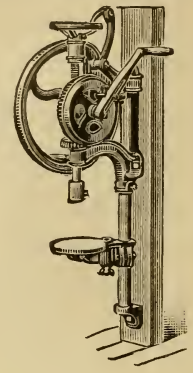
DRILLING MACHINE No. 1.

Extension Crank. Adjustable Feed. Drills ¾-in. holes or less to center of 12-in. circle.

Double geared, self feed. Upright column and feed screw are made of steel, and drill spindle is made of tool steel, drilled to take in ½-in. shank drills.

Weight, 80 pounds.

Price each **$5.00**



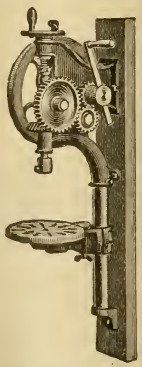
DRILLING MACHINE No. 2.

Extension Crank. Adjustable Feed. Drills 1-in. holes or less to center of 14-in. circle.

Double geared, self feed. Upright column and feed screw are made of steel, and drill spindle is made of tool steel, correct size to take in ½-in. shank drills.

Weight, 100 pounds.

Price each **$6.00**



DRILLING MACHINE No. 23.

Made with Ball Bearing feed nut which saves fifty per cent. of the power.

For medium and heavy work. Can be changed to fast or slow speed. Drills 1¼-in. holes to the center of 18-in. circle. This is a very strong, well made machine.

Drill spindle is made of tool steel and is correct size to take in ½-in. shank drills.

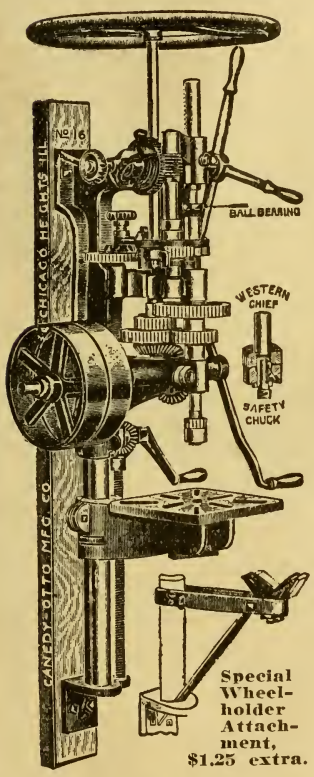
Weight, 175 pounds.

Price each **$10.00**

For Drill Chucks, See Page 149.

WESTERN CHIEF DRILL No. 16.

LARGEST POST DRILL MADE. A POST DRILL WITH THE FINE FEATURES OF MACHINE SHOP FLOOR DRILLS.



Special Wheel-holder Attachment, $1.25 extra.

Straight and Bevel Gears are cut.

Fast and slow speed, instant change.

Hand Lever Feed, also Horizontal Gear-driven Positive Self-feed, changed to fast, slow or medium speed instantly. These feeds work independently of each other and bit is lifted quickly.

Raise and lower device to Table.

Drills to center of 24-inch Circle.

Bores 0 to 1½ inches.

Up and Down run of Spindle, 6¼ inches.

Up and Down run of Table, 15½ inches.

Greatest distance from Table to Spindle, 18½ inches.

Size of Pulleys, 10¼ x 2½ inches. Should run 175 to 190 revolutions per minute.

Spindle bored for ½ or 41/64-inch shank bits.

ALWAYS STATE SIZE WHEN ORDERING.

Weight, Hand Power.....340 lbs.

Weight, Hand and Power.....360 lbs.

Wheel Rims can be drilled by removing table and using the forked support as a wheel holder.

When ordering hand power only, the shaft is left extended, so that Pulleys may be placed at any time.

ALWAYS SHIPPED WITHOUT PULLEYS, UNLESS ORDERED.

PRICE.

Hand Power only	**$32.00**
With Pulleys (as illustrated)	**34.00**

For Drill Chucks, See Page 149.

DRILLS, BITS AND FILES.

ARCADE FILES.

Best on Earth.

	Price Each
16-in. half round	40¢
14-in. half round	30¢
12-in. half round	23¢
10-in. half round	18¢
16-in. mill	27¢
14-in. mill	20¢
12-in. mill	15¢
10-in. mill	12¢
8-in. mill	9¢
6-in. mill	8¢
12-in. round	15¢
10-in. round	12¢
9-in. round	10¢
8-in. round	9¢
16-in. flat bastard	33¢
14-in. flat bastard	25¢
12-in. flat bastard	20¢
8-in. taper saw	8¢
7-in. taper saw	7¢
6-in. taper saw	6¢
5-in. taper saw	5¢
9-in. slim taper saw	9¢
8-in. slim taper saw	8¢
7-in. slim taper saw	7¢
6-in. slim taper saw	6¢
5-in. slim taper saw	5¢
4-in. slim taper saw	5¢

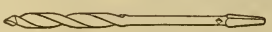
WOOD RASPS.

Do not confuse wood rasps with Bastard Files.

12-in. flat	38¢
14-in. flat	45¢
16-in. flat	50¢
12-in. half round	39¢
14-in. half round	48¢
16-in. half round	55¢

IMPROVED JENNING'S PATENT BRACE BITS.

1/4, each	15¢
5/16, each	15¢
3/8, each	15¢
7/16, each	17¢
1/2, each	20¢
9/16, each	22¢
5/8, each	24¢
11/16, each	27¢
3/4, each	27¢
13/16, each	30¢
7/8, each	30¢
15/16, each	35¢
1, each	35¢



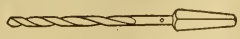
SYRACUSE WOOD BITS.

Bores hard wood fast and easy, and is made to stand contact with metal so that it is not damaged if a nail is accidentally encountered.

1/16, each	6c
3/32, each	6c
1/8, each	6c
5/32, each	7c
3/16, each	8c
7/32, each	10c
1/4, each	11c
9/32, each	13c
5/16, each	13c
11/32, each	15c
3/8, each	15c
13/32, each	17c
7/16, each	17c
15/32, each	19c
1/2, each	19c
17/32, each	21c
9/16, each	21c
5/8, each	23c
11/16, each	25c
3/4, each	27c
13/16, each	29c
7/8, each	32c
15/16, each	36c
1, each	40c

DRILLS AND BITS.

When Ordering, Please Observe that as a Rule You want Your Drill 1/32 Larger than the Size of Hole to be bored, and Always Order the Exact Size of Drill Wanted.

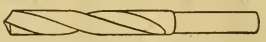


BIT STOCK DRILLS FOR METAL OR WOOD.

1/16, each..... 4¢
3/32, each..... 5¢
1/8, each..... 6¢
5/32, each..... 7¢
3/16, each..... 8¢
7/32, each..... 9¢
1/4, each..... 11¢
9/32, each..... 12¢
5/16, each..... 14¢
11/32, each..... 17¢
3/8, each..... 18¢
13/32, each..... 21¢
7/16, each..... 23¢
15/32, each..... 26¢
1/2, each..... 27¢
17/32, each..... 29¢
9/16, each..... 38¢
5/8, each..... 42¢
11/16, each..... 48¢
3/4, each..... 52¢
13/16, each..... 57¢
7/8, each..... 61¢
15/16, each..... 68¢
1, each..... 74¢

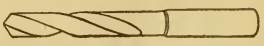
STRAIGHT SHANK DRILLS FOR CHUCKS.

1/8, each..... 6¢
5/32, each..... 8¢
3/16, each..... 9¢
13/64, each..... 9¢
7/32, each..... 10¢
1/4, each..... 12¢
9/32, each..... 14¢
5/16, each..... 16¢
11/32, each..... 18¢
3/8, each..... 20¢
13/32, each..... 22¢



DRILLS WITH 1/2 IN. SHANK.

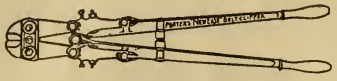
1/8, each..... 17¢
5/32, each..... 18¢
3/16, each..... 21¢
7/32 each..... 22¢
1/4, each..... 24¢
9/32, each..... 26¢
5/16, each..... 27¢
11/32, each..... 28¢
3/8, each..... 29¢
13/32, each..... 30¢
7/16, each..... 31¢
15/32, each..... 32¢
1/2, each..... 33¢
17/32, each..... 34¢
9/16, each..... 35¢
19/32, each..... 36¢
5/8, each..... 38¢
21/32, each..... 40¢



DRILLS WITH 5/8 IN. SHANK.

1/8, each..... 21¢
5/32, each..... 22¢
3/16, each..... 23¢
7/32, each..... 25¢
1/4, each..... 26¢
9/32, each..... 27¢
5/16, each..... 28¢
11/32, each..... 30¢
3/8, each..... 31¢
13/32, each..... 32¢
7/16, each..... 33¢
15/32, each..... 34¢
1/2, each..... 35¢
17/32, each..... 36¢
9/16, each..... 37¢
19/32, each..... 38¢
5/8, each..... 39¢

GENERAL SHOP TOOLS AND SUPPLIES.



NEW EASY BOLT CLIPPERS.

Acknowledged the finest bolt clipper ever produced. This is the genuine Porter Patent.

No. 1—Cutting ⅜ or less.....**$2.50**
No. 2—Cutting ½ or less..... **3.50**

EXTRA JAWS FOR NEW EASY CLIPPERS.

For No. 1 clippers, per pair.....**$1.30**
For No. 2 clippers, per pair..... **1.70**

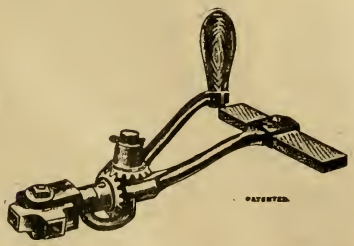
ALLEN-RANDALL BOLT AND RIVET CLIPPER.

Warranted perfect in material and workmanship, but not against cutting steel.

No. 1—Cutting ⅜ or less.....**$2.25**
No. 2—Cutting ½ or less..... **3.25**

EXTRA JAWS FOR ALLEN-RANDALL CLIPPERS.

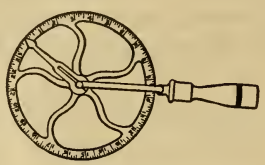
For No. 1 clippers, per pair.....**$1.30**
For No. 2 clippers, per pair..... **1.70**



LANG'S TIRE BOLT WRENCH.

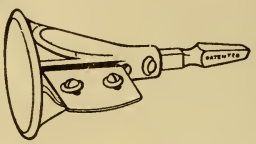
For New and Old Work.

Can be used on ⅛, $\frac{3}{16}$ and ¼ nuts.
Price each, complete.....**$1.00**
Extra Wrench Heads, each..... **.25**



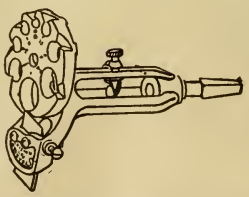
TIRE MEASURING WHEEL.

This is a graduated wheel, finely polished, with cherry handle. Two feet in circumference; guaranteed to run perfectly true.
Price each.....**$1.40**



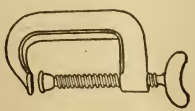
STEARNS SPOKE POINTER NO. 1.

Points anything up to 1⅞.
Price each.....**65¢**



BONNEY'S ADJUSTABLE HOLLOW AUGUR.

Cuts any tennon from ⅜ to 1-in.
Price each.....**75¢**



EAGLE SCREW CLAMPS.

Ball and socket Swivel.

3-in. opening, price each.....**18¢**
4-in. opening, price each.....**22¢**
5-in. opening, price each.....**25¢**
6-in. opening, price each.....**30¢**

GENERAL SHOP TOOLS AND SUPPLIES.

TRIMO PIPE WRENCHES.

These are too well known to need description. They are the best pipe wrench ever made.

6-in., price each.....**$0.65**
8-in., price each.....**.65**
10-in., price each.....**.75**
14-in., price each.....**1.00**
18-in., price each.....**1.30**

MONKEY WRENCHES.

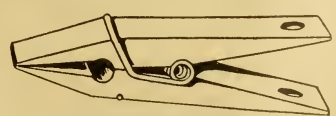
Genuine engineer's case hardened wrenches. THE BEST.

8-in., price each.....**$0.40**
10-in., price each.....**.50**
12-in., price each.....**.60**
15-in., price each.....**1.00**

HEAVY PLIERS.

These are made of genuine cast steel. They are the best pliers and wire cutters made.

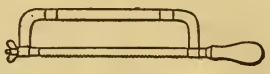
6-in., price per pair.....**30¢**
8-in., price per pair.....**40¢**
10-in., price per pair.....**50¢**
12-in., price per pair.....**75¢**



TRIMMER'S CLIPS.

These wooden clips, with strong steel spring, are in daily use in every trimming shop.

Price per dozen.....**$1.00**



ADJUSTABLE HACK SAW FRAME.

Strong and durable. No small pieces to get lost or out of order. Will take any length blade from 8 to 12-in. Without any blades, price each.....**75¢**

"VICTOR" HACK SAW BLADES.

The best that money can buy. Should be stretched tight when in use. Superior to all others.

6-in. in full dozens, per dozen.....**45¢**
Less than full dozen, each.....**5¢**
7-in. in full dozens, per dozen.....**50¢**
Less than full dozen, each.....**5¢**
8-in. in full dozens, per dozen.....**55¢**
Less than full dozen, each.....**5¢**
9-in. in full dozens, per dozen.....**60¢**
Less than full dozens, each.....**6¢**
10-in., in full dozens, per dozen.....**70¢**
Less than full dozens, each.....**7¢**
11-in. in full dozens, per dozen.....**75¢**
Less than full dozens, each.....**8¢**
12-in. in full dozens, per dozen.....**80¢**
Less than full dozen, each.....**9¢**

SCREW DRIVERS.

No. 40 Beech Handle.

Capped Ferrule, Heavy Flat Blade, Polished.

3-in., price each.....**6¢**
4-in., price each.....**7¢**
5-in., price each.....**8¢**
6-in., price each.....**9¢**
7-in., price each.....**10¢**
8-in., price each.....**12¢**
10-in., price each.....**16¢**

YANKEE SCREW DRIVERS.

No. 11 Right and Left Hand, and Rigid.

Fine Cherry Finish, Nickel Plated.

2-in., price each.....**30¢**
4-in., price each.....**35¢**
6-in., price each.....**45¢**
8-in., price each.....**50¢**

GENERAL SHOP TOOLS AND SUPPLIES.

DRAWING KNIVES.

Made from Jessup's Best Cast Steel and Norway Iron.

No. 1, Extra Quality.

8-in., price each.....**50¢**
9-in., price each.....**55¢**
10-in., price each.....**60¢**
11-in., price each.....**65¢**

No. 10, Razor Blade.

8-in., price each.....**55¢**
9-in., price each.....**60¢**
10-in., price each.....**65¢**
11-in., price each.....**70¢**

NO. 10 CHISELS.

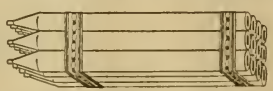
Plain Edges, Solid Cast Steel, Six-Inch Blade, Wood Handle as Shown in Cut.

Width in inches	1/8	1/4	3/8	1/2	5/8	3/4
Each	**25¢**	**25¢**	**25¢**	**25¢**	**27¢**	**30¢**
Width in inches	7/8	1	1 1/4	1 1/2	1 3/4	2
Each	**32¢**	**33¢**	**36¢**	**40¢**	**42¢**	**45¢**

NO. 21-L CHISELS.

Beveled Edges, Solid Cast Steel, Six-Inch Blade, Leather Head.

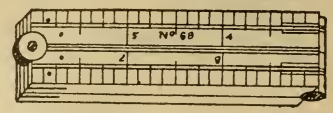
Width in inches	1/8	1/4	3/8	1/2	5/8	3/4
Each	**35¢**	**35¢**	**35¢**	**35¢**	**37¢**	**40¢**
Width in inches	7/8	1	1 1/4	1 1/2	1 3/4	2
Each	**42¢**	**45¢**	**48¢**	**50¢**	**55¢**	**60¢**



CARPENTER'S LEAD PENCILS.

One dozen in a package.

Price, per dozen.....**20¢**
When less than one dozen is ordered, price each..... **5¢**



BOXWOOD RULES.

One Foot, Four Fold, Narrow.

No. **69**—Round joint, middle plates, 8ths and 16ths of inches, 5/8-in. wide. Price each..... **9¢**

Two Feet, Four Fold, Narrow.

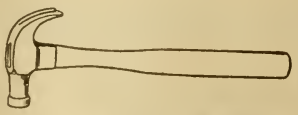
No. **68**—Round joint, middle plates, 8ths and 16ths of inches, 1-in. wide. Price each.....**12¢**

No. **62**—Square joint, full bound, 8ths, 10ths, 12ths and 16ths of inches, drafting scale 1-in. wide. Price each .....**35¢**

BOXWOOD CALIPER RULES.

No. **36**—6 in., two fold, square joint, 8ths, 10ths, 12ths and 16ths of inches, 7/8 wide. Price each.....**20¢**

No. **32**—1 foot, four fold, arch joint, edge plates, 8ths, 10ths, 12ths and 16ths of inches, 1-in. wide. Price each .....**30¢**



NO. 74 NAIL HAMMERS.

Adze-Eye. Bell Face, solid tool steel polished. Weight one pound.

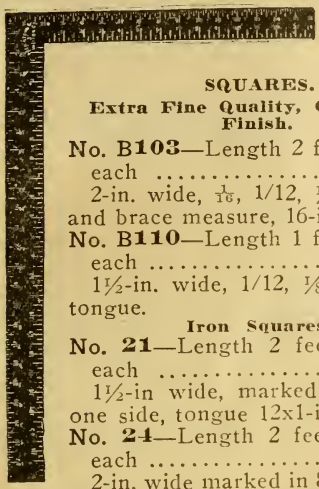
Price each .....**45¢**

HAMMER HANDLES.

XXX Grade for Machinists' and Blacksmiths' Hammers.

13-in., price each.....**5¢**
14-in., price each.....**5¢**
16-in., price each.....**6¢**
18-in., price each.....**7¢**
20-in., price each.....**8¢**

GENERAL SHOP TOOLS AND SUPPLIES.



SQUARES.

Extra Fine Quality, Gun Metal Finish.

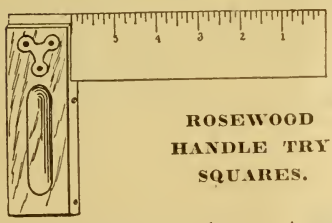
No. B103—Length 2 ft., price each **$1.00**
2-in. wide, 1/16, 1/12, 1/8, 1/4 board and brace measure, 16-inch tongue.

No. B110—Length 1 ft., price each ..... **70¢**
1½-in. wide, 1/12, 1/8, 1/4, 8-inch tongue.

Iron Squares.

No. 21—Length 2 feet, price each ..... **25¢**
1½-in wide, marked in 8ths on one side, tongue 12x1-in.

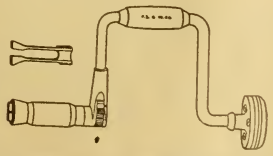
No. 24—Length 2 feet, price each ..... **35¢**
2-in. wide marked in 8ths on both sides, tongue 12x1½-in.



ROSEWOOD HANDLE TRY SQUARES.

No. 1 brass face plates. Attached with screws. Steel blades.

5½-in., price each..... **25¢**
6 -in., price each..... **25¢**
7½-in., price each..... **28¢**
9 -in., price each..... **32¢**



BALL-BEARING RATCHET BRACE.

Finely Polished.

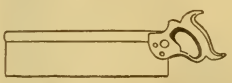
8-in., each..... **$1.40**
10-in., each..... **1.50**
12-in., each..... **1.60**

HAND, PANEL AND RIP SAWS.

Spring steel, etched blade and grained applewood handle, polished edges, 5 improved brass screws.

No. D-S Skew Back.

No. DS—Disston's 18-in. Panel 9, 10, 11 and 12 points, each..... **$1.15**
No. DS—Disston's 20-in. Panel 9, 10, 11 and 12 points, each..... **1.25**
No. DS—Disston's 22-in. Panel 9, 10, 11 and 12 points, each..... **1.35**
No. DS—Disston's 24-in. Panel 8, 9, 11 and 12 points, each..... **1.40**
No. DS—Disston's 26-in. Hand 8, 9, 10 and 11 points, each..... **1.50**
No. DS—Disston's 26-in. Rip 4½, 5, 5½ and 6 points, each..... **1.50**



BACK SAWS.

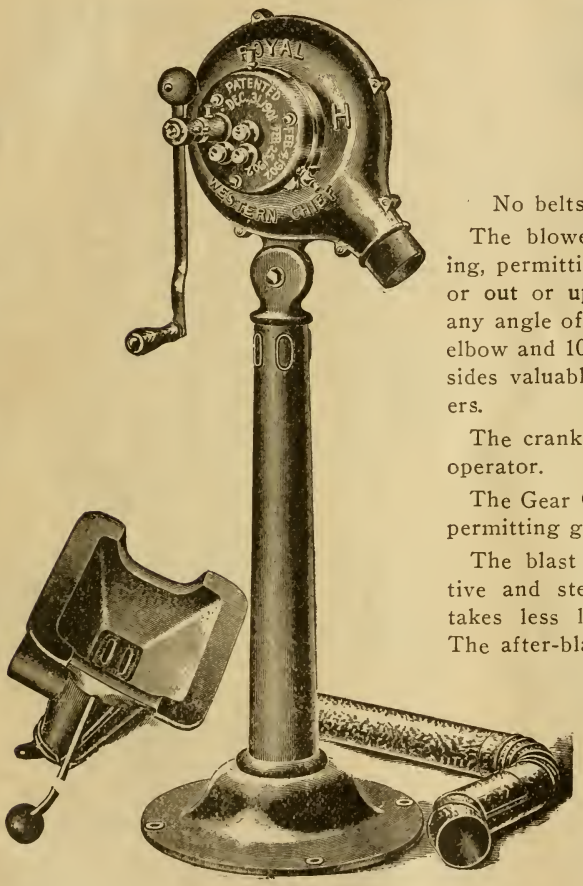
No. 0, Beech Handle Polished Edge.

10-in., price each..... **$0.60**
12-in., price each..... **.65**
14-in., price each..... **.80**

"BAILEY" ADJUSTABLE PLANES With Corrugated Bottoms.

No. 407—C. Smooth Plane, 7-in. long, 1⅝-in. cutter, each..... **$1.25**
No. 408—C. Smooth Plane, 8-in. long, 1¾-in. cutter, each..... **1.35**
No. 409—C. Smooth Plane, 9-in. long, 2-in. cutter, each..... **1.45**
No. 410—C. Smooth Plane, 10-in. long, 2⅜-in. cutter, each..... **1.65**
No. 414—C. Jack Plane, 14-in. long, 2-in. cutter, each..... **1.65**
No. 418—C. Fore Plane, 18-in. long, 2⅜-in. cutter, each..... **2.00**
No. 422—C. Jointer Plane, 22-in. long, 2⅜-in. cutter, each..... **2.50**
No. 424—C. Jointer Plane, 24-in. long, 2⅝-in. cutter, each..... **3.00**

ROYAL WESTERN CHIEF STEEL BLOWER, SIZE H.



No belts, no clutches, no ratches.

The blower case oscillates on its bearing, permitting nose of case to point **down** or **out** or **up**, as may be desired, meeting any angle of blow pipe, thereby saving one elbow and 10 per cent of the blast force besides valuable room occupied by the blowers.

The crank turns to right or left, as suits operator.

The Gear Case is oil-tight and dust proof, permitting gears to run in a bath of oil.

The blast is very powerful, and is positive and steady as a power blower, and takes less labor to operate than others. The after-blast is strong and lasting.

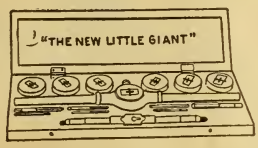
The column stand and iron base give a solid, non-trembling foundation.
The room it takes is less than any other blower.
Fan, 12 in. height (as illustrated), 65 pounds. We carry this blower in stock.
Price (including pipe and Tuyere iron).....**$16.00**

ROYAL FIRE POT TUYERE IRON.

This tuyere iron is the one shown in the above cut, without pipe. It is a very large heavy fire pot, weighing 50 lbs., and measuring 8x9½ inches inside. Needs no clay.
Price each **$4.00**

SCREW PLATES, TAPS, DIES, ETC.

Many firms offer cheaper Screws, but no manufacturer ever claimed to offer better outfits than the Little Giant.



NO. 5 LITTLE GIANT SCREW PLATE.

With Adjustable Tap Wrench.

This is the best assortment for all-round blacksmith work. Prices on other assortments quoted on application.

Cutting ¼20; 5/16 18; 3/8 16; 7/16 14; ½12; 5/8 11; ¾10. Length of stock, 23 in.

Complete in hardwood case; carried in stock; price.....**$9.90**

NO. 5½ LITTLE GIANT SCREW PLATE.

Assortment is the same as shown above except that it includes 9/16.

Carried in stock.

Price of No. 5½.....**$11.25**

NO. 65 LITTLE GIANT SCREW PLATE

This assortment is the same as No. 5, except that it is "full stocked," that is, it has a stock for every die.

Price, shipped from eastern factory complete in hardwood case...**$12.00**

TAPER TAPS.

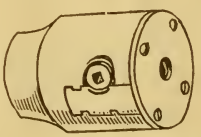
Same as those which come with the Little Giant Screw Plates.

¼—20—Price each.....**20¢**
5/16—18—Price each.....**22¢**
3/8—16—Price each.....**25¢**
7/16—14—Price each.....**27¢**
½—12—Price each.....**30¢**
9/16—12—Price each.....**33¢**
5/8—11—Price each.....**35¢**
¾—10—Price each.....**40¢**

LITTLE GIANT DIES.

These are made to fit all regular Little Giant Screw Plates.

¼—20—Price each.....**$0.80**
5/16—18—Price each..... **.80**
3/8—16—Price each..... **.95**
7/16—14—Price each..... **.95**
½—12—Price each..... **1.15**
9/16—12—Price each..... **1.15**
5/8—11—Price each..... **1.30**
¾—10—Price each..... **1.60**



SILVER'S DRILL CHUCK.

Fitted with ½-in. plain arbor, ready to use on any drill having ½-in. hole in the spindle. 5/8 arbor, or taper arbor can be furnished promptly but not carried in stock. This chuck is guaranteed to hold securely. Drills ½-in. or less.

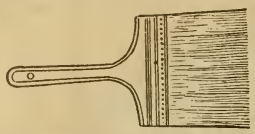
Price each.....**$4.50**

GOSHEN DRILL CHUCKS.

Permit the use of drills 3/8 and smaller, and is made with ½-in. shank. We can fully guarantee this chuck, regardless of the very low price at which it is sold.

Price each.....**$2.00**

CARRIAGE PAINTERS' BRUSHES.



WALL PAINT BRUSHES, No. 1532-R.

Best brass bound; very heavy and warranted. Selected white bristles.

No. **1**—3 -in., price each.....**50¢**
No. **2**—3½-in., price each.....**60¢**
No. **3**—4 -in., price each.....**75¢**

FRENCH SASH BRUSHES, No. 622.

All white bristles, Extra Grade.

No. **2**—Price each..... **7¢**
No. **4**—Price each..... **9¢**
No. **6**—Price each.....**12¢**
No. **8**—Price each.....**14¢**

COACH PAINTERS SPOKE, No. 556.

No. **1**—Price each.....**60¢**
No. **2**—Price each.....**65¢**
No. **3**—Price each.....**85¢**

BRISTLE VARNISH BRUSHES.

No. 640, French Bristle.

Flat, chisel point.

1 -in., each..... **5¢**
1½-in., each..... **8¢**
2 -in., each.....**10¢**
2½-in., each.....**13¢**

No. 656, XX Grade Bristle.

Flat, chisel point.

1 -in., each.....**15¢**
1½-in., each.....**22¢**
2 -in., each.....**30¢**
2½-in., each.....**40¢**

No. 684, XXXX Grade. Chinese Bristle.

Chisel point.

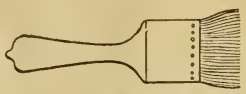
1 -in., each.....**20¢**
1½-in., each.....**25¢**
2 -in., each.....**30¢**
2½-in., each.....**40¢**

FITCH FLOWING VARNISH, No. 754.

XX Grade. Double Thick.

Square or chisel point.

1 -in., each.....**30¢**
1½-in., each.....**45¢**
2 -in., each.....**55¢**
2½-in., each.....**70¢**
3 -in., each.....**85¢**



BADGER FLOWING VARNISH, No. 762.

Double Thick.

Chisel point.

1 -in., each.....**$0.40**
1½-in., each..... **.60**
2 -in., each..... **.85**
2½-in., each..... **1.20**

CAMEL HAIR COLOR, No. 778.

Double Thickness.

1 -in., each.....**$0.35**
1½-in., each..... **.50**
2 -in., each..... **.75**
2½-in., each..... **1.00**

PAINTERS DUSTERS, No. 558.

No. **14**—Black outside, each.....**55¢**
No. **8**—All fine white bristes, each..**80¢**

CAMEL HAIR SWORD STRIPERS, No. 796

No. **2**—About $\frac{1}{16}$ wide, each.....**10¢**
No. **3**—About $\frac{3}{8}$ wide, each.....**10¢**

DAGGER STRIPERS, No. 800.

No **2**—About $\frac{3}{8}$ wide, each.....**12¢**

BROAD CAMEL HAIR PENCILS, No. 798.

Extra Large in Metal Tubes.

No. **1**—Hair 1-in. long, each.....**10¢**
No. **2**—Hair 1½-in. long, each.....**15¢**
No. **3**—Hair 2-in. long, each.....**20¢**

PAINTS AND VARNISHES.

We Handle Two Standard Brands of Varnish, Both of Which Can be Absolutely Relied Upon. Give Them a Fair Trial.

STANDARD VARNISH.	Pint Cans	Quart Cans	Half-Gal. Cans	Gal. Cans
Finest Durable Body Varnish for finishing best grade work	$0.70	$1.30	$2.50	$4.85
Finest Durable Gear Varnish, for finishing fine gear work	.60	1.10	2.10	4.05
Heavy Gear Varnish, for finishing running gears with one coat	.45	.80	1.50	2.85
One Coat Coach Varnish, for finishing vehicles with one coat	.50	.95	1.75	3.45
Rubbing Body Varnish, hardens, ready for rubbing, in four days' time	.50	.95	1.75	3.45
No. 1 Quick Rubbing Varnish, hardens ready for rubbing in two days	.40	.75	1.40	2.65
Black Rubbing Varnish, a color varnish that can be rubbed out in two days	.45	.85	1.55	3.00

LILY VARNISH.	Half-Gal. Cans	Gallon Cans
No. 1—Wearing Body Varnish, for finishing best grade work	$2.10	$4.00
No. 2—Elastic Gear Varnish, for finishing fine gear work	1.60	3.00
No. 3—Heavy Gear Varnish, for finishing running gears with one coat	1.60	3.00
No. 4—One Coat Coach Varnish, for finishing vehicles with one coat	1.60	3.00
No. 5—Three-Day Rubbing Varnish, hardens ready for rubbing in three days	1.60	3.00
No. 6—Two-Day Rubbing Varnish, hardens ready for rubbing in two days	1.60	3.00
No. 7—Black Rubbing Varnish, a color varnish that can be rubbed in two days	1.60	3.00
No. 8—Coach Varnish, for general use on cheap work, mixing colors, etc. Gallon cans only	.....	1.50

POWDERED PUMICE STONE.

Sold Only in 5-lb. Packages.

We handle the finest quality of pumice stone, known to the trade as F. F. F. Price per pound.....**5¢**

LUMP PUMICE STONE.

A first class quality of lump pumice in bulk. Price per pound.....**15¢**

RUBBING BRICKS.

Imported goods, the best that can be obtained for carriage painters' uses. Price each .....**20¢**

RUBBING FELTS.

No. **1**—Hard, heavy rubbing felts, size 3x4½-in. Price each.....**25¢**

No. 2—Medium soft rubbing felts, size 3x4½-in. Price each.....**15¢**

STEEL WOOL.

A material regularly in demand to take the place of other materials for rubbing down varnish, saving time and labor. It does not gum up or clog. Sold only in one-pound packages.

No. **1**—Price per pound.....**40¢**

CARRIAGE PAINTERS' SUPPLIES.

ROUGH STUFF.

Body Filler.

Black Body Filler, per quart.....**45¢**
Yellow Body Filler, per quart.....**45¢**

Gear Filler.

Black Gear Filler, per quart.....**45¢**
Red Gear Filler, per quart.....**45¢**

BUGGY TOP DRESSING.

This is the best dressing for buggy tops ever offered to the trade. Makes an old top look like new, and is suitable both for rubber and leather tops.

Quart Cans, price each.....**60¢**
Pint Cans, price each.....**35¢**
Half-Pint Cans, price each.....**20¢**

CHAMIOS SKINS.

Our chamois skins are carefully selected for carriage painters' uses, free from lint, and good strong wearing qualities.

Size 18x24. Each.....**50¢**

SPONGES.

We handle only the best Rock Island grade of sheeps' wool sponges, especially suitable for carriage painters' work. They run in size about 14 to the pound.

Price each .....**25¢**

PEERLESS AUTO TOP DRESSING

For Mohair, Duck, Canvas, Cloth Tops.

An elastic, durable renovator for mohair and canvas cloth tops and curtains. Makes the top absolutely waterproof, at the same time leaving it soft and pliable. Does not print through or soil the lining. Restores the top to its original color and leaves it with a soft, silky appearance. Does not collect dust. Dries over night.

The Original Mohair Dressing.

Quart cans only. Price each.....**70¢**

PEERLESS EXTRA FINE BLACK JAPAN

Solid covering over brass, nickel or iron. No primer or undercoat required. Dries over night with a high gloss finish and will not crack, chip or peel and is not affected by heat.

Quart cans only; price each.....**60¢**

PAINT AND VARNISH REMOVER.

Ready for the brush. Will not discolor wood, soften glue, or interfere with subsequent coats of paint. 15 minutes after it is applied, old paint can be removed with a common putty knife.

Price per quart can.....**65¢**

ROGERS CARRIAGE PAINTS.

We are pleased to state that we have changed our line of carriage paints and that we are stocking the Celebrated ROGERS line of paints which is the oldest line on the market as they were first in the field and the fact that they are now imitated by almost all other firms is ample assurance that they are making a standard article. These goods are guaranteed to be absolutely satisfactory and we commend them to our trade.

PREPARED BUGGY PAINT.

Ready for the Brush.

This paint is suitable for any work calling for a color gloss coat. For carriages, sleighs, chairs, screens, etc., it cannot be excelled.

Following colors carried in stock:

	Quart	Pint
Black	45c	27c
Dark Green	45c	27c
Light Green	45c	27c
Yellow	45c	27c
Wine Color	45c	27c
Blue	45c	27c
Cart Red	45c	27c
Vermilion	60c	35c
Carmine	60c	35c

WAGON AND IMPLEMENT PAINT.

This paint is all prepared, ready for use. Following colors in stock: Red, green and yellow.

Quart Cans, each.....40c

QUICK DRYING COLORS.

Q. D. English Coach Black, per lb	18c
X Ivory Drop Black, per lb	18c
XX Ivory Drop Black, per lb	23c
XXX Ivory Drop Black, per lb	28c
Wine Color B., per lb	23c
Wine Color D., per lb	28c
Brewster Green L., per lb	28c
Brewster Green D., per lb	28c
Chrome Yellow M., per lb	28c
X Coach Green M., per lb	23c
Indian Red L., per lb	18c
Indian Red D., per lb	18c
New York Red, per lb	50c
Mohawk Red L., per lb	50c
Mohawk Red D., per lb	50c
Royal Red	18c

STRIPING COLORS IN TUBES.

Flake white, per tube	15c
Imitation Gold, per tube	15c
Chrome Yellow, per tube	15c
No. 4504 striping red, per tube	40c

LADDERS.

STEP LADDERS.

We carry in stock, ready for instant shipment, two grades of step ladders, listed below. The No. 800 ladder is the one which we have sold for many years, and which gives universal satisfaction, as there is no ladder on the market which can compare with it, considering the price. There is, however, a large demand for a better ladder, one with a good wide top, good strong legs, and iron rods under every step. To supply this demand we offer our new No. 900 step ladder.

No. 900 ladder has an extra lock besides the shelf lock.

Both the No. 800 and the No. 900 have bucket boards and strong steel hinges, and all steel locks.

PRICE LIST OF NO. 800 STEP LADDERS.

4 foot, price each	**35¢**
5 foot, price each	**45¢**
6 foot, price each	**55¢**
7 foot, price each	**65¢**
8 foot, price each	**70¢**

PRICE LIST OF NO. 900 STEP LADDERS.

4 foot, price each	**$0.65**
5 foot, price each	**.80**
6 foot, price each	**.95**
7 foot, price each	**1.10**
8 foot, price each	**1.30**
9 foot, price each	**1.45**
10 foot, price each	**1.60**
12 foot, price each	**2.75**
14 foot, price each	**3.20**

STANDARD SINGLE LADDERS AND POINTED LADDERS.

These ladders are all constructed of clear Norway with clear hickory rounds, and are so proportioned as to give them the greatest strength without making them too heavy. Years of experience in the ladder business has taught us just what to use in the construction of such ladders. The sizes are also proportioned to the length of ladder, and we give here the sizes of an 18 foot standard single ladder, which is an average length:

Size of side pieces, 1½x2⅝.
Size of rounds, 1⅛.
Average width between sides, 17 inches.
Width at base, 22.
Rounds 12 inches apart.
Weight per foot, 1½ pounds.

Pointed ladders are mostly used for picking fruit, and are the same price as Standard Single ladders.

10 foot ladder, price each	**$0.80**
12 foot ladder, price each	**1.00**
14 foot ladder, price each	**1.30**
16 foot ladder, price each	**1.45**
18 foot ladder, price each	**1.75**
20 foot ladder, price each	**2.00**

LADDERS.

COMMON EXTENSION LADDERS.

We use only clear Norway in the construction of these ladders, with clear hickory rounds. As these are made to be raised and lowered by hand, we use a malleable iron gravity drop hook and a lug, which extends into the sides of the ladder to support the weight. We use the judgment which we have gained by years of experience in the ladder business, to determine what sizes of material shall be used to combine lightness with strength. The sizes will vary according to the length. We give here the sizes of a 32 foot ladder, which is an average size.

Size of side pieces, 1½x2⅝-in.
Average width between sides, 17-in.
Size of rounds, 1¼-in.
Width at the base, 26-in.
Rounds 12-in. apart.
Weight per foot, 2 lbs.

If the parts of the ladder were laid end to end, the total length would be the "length of ladder." Therefore, you should figure about two feet off for lap. These ladders can also be made in three parts instead of two, at a net extra cost of **$1.00.**

20 foot, price each	**$2.20**
22 foot, price each	**2.42**
24 foot, price each	**2.64**
26 foot, price each	**2.86**
28 foot, price each	**3.08**
30 foot, price each	**3.30**
32 foot, price each	**3.68**
34 foot, price each	**3.91**
36 foot, price each	**4.14**
38 foot, price each	**4.37**
40 foot, price each	**4.60**

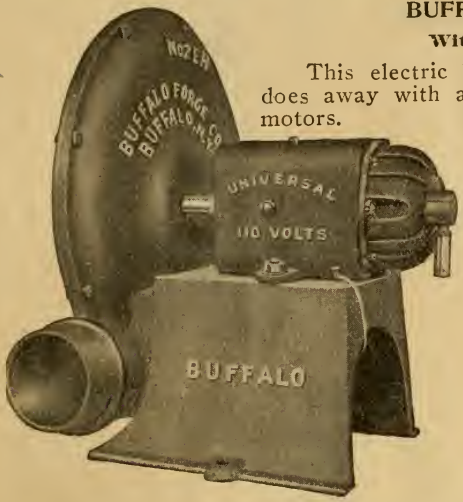
WINDLASS EXTENSION LADDERS.

We use only clear Norway, with clear hickory rounds, in the construction of these ladders. We use a patent automatic hook on these ladders which permits them to be raised or lowered by the use of the windlass while the ladder is in position. We use best sizes of material to combine lightness with strength. The sizes will vary in proportion to the length of ladder. We give here the sizes of a 32 foot ladder, which is an average size:

Size of side pieces, 1½x2⅝-in.
Average width between sides, 17-in.
Width at base, 26-in.
Size of rounds, 1¼-in.
Rounds 12-in. apart.
Weight per foot, 2 lbs.

If the parts of the ladder were laid end to end, the total length would be the "length of ladder." Therefore allow about two feet for lap. These ladders can be made in three parts instead of two, at a net extra cost of **$1.50.**

20 foot, price each	**$2.60**
22 foot, price each	**2.86**
24 foot, price each	**3.12**
26 foot, price each	**3.38**
28 foot, price each	**3.64**
30 foot, price each	**3.90**
32 foot, price each	**4.32**
34 foot, price each	**4.59**
36 foot, price each	**4.86**
38 foot, price each	**5.13**
40 foot, price each	**5.40**



BUFFALO ELECTRIC BLOWER.

With 110-Volt Electric Motor.

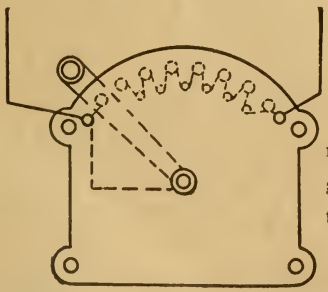
This electric blower has a new type of motor, which does away with all the objectionable features of old-style motors.

The case is air-tight, keeping out all dirt. The lubrication is easy and certain. No complicated wiring is necessary, as the wires may be attached to an ordinary socket.

All that is necessary after receiving this blower, is to have your local electrician furnish enough ordinary lamp cord to carry the electric current from the nearest circuit, to the motor, which amounts to almost nothing, if electric current is within reach.

We guarantee this motor to run perfectly with any alternating or direct electric current, of any frequency, from 12 to 133 cycles, providing the voltage is not less than 100 or more than 120. Your local electrician can give you this information. These figures are very wide in range, and cover almost any electric current from any source, in any part of the country.

The expense of running motor is a mere trifle, not more than the cost of burning a common electric light. No tuyer iron is included with this machine. It will work satisfactorily with any good tuyer iron.



THE SPEED REGULATOR.

We furnish with every blower a special speed regulator, which does away with the use of blast gates in the pipe. The speed is regulated by simply turning the switch to any desired notch.

NET PRICES ON BUFFALO ELECTRIC BLOWERS.

No. 2E is carried in stock. Other sizes shipped from Buffalo factory, direct.

	No. of Fires	Height	Diameter of Outlet	R. P. M.	Voltage	Weight	Price
2-E	1	15 in.	3 in.	2000	110	50	**$24.00**
2-EH	1-2	15 in.	3 in.	3400	110	50	**37.50**
3-E	2-3	15 in.	3 in.	4800	110	50	**48.00**

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